

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:52:18 ON 09 FEB 95

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STRUCTURE FILE UPDATES: 3 FEB 95 HIGHEST RN 160636-16-8

DICTIONARY FILE UPDATES: 8 FEB 95 HIGHEST RN 160636-16-8

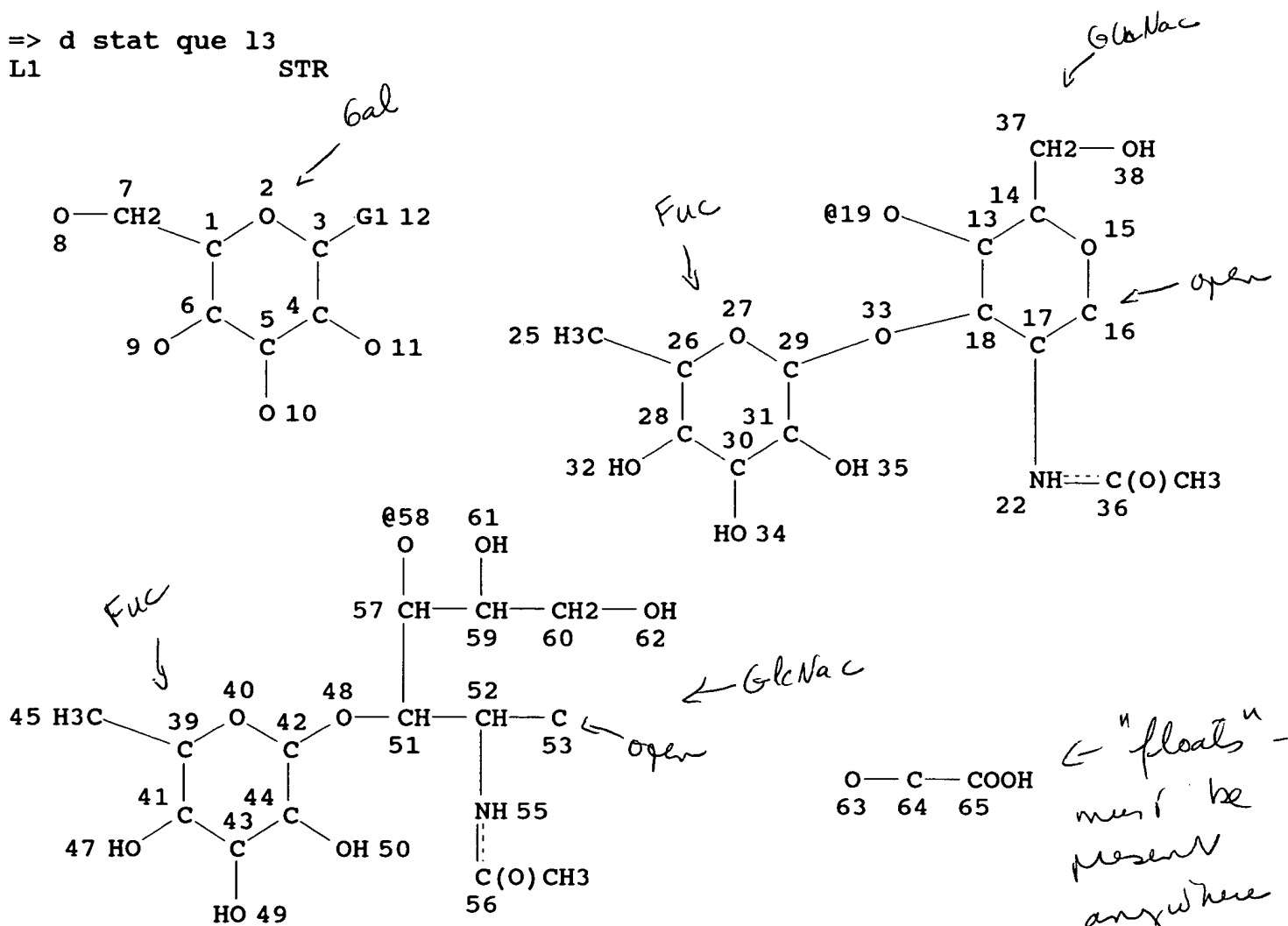
TSCA INFORMATION NOW CURRENT THROUGH MAY 1994

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conducting SmartSELECT searches.

=> d stat que 13

L1

STR



VAR G1=19/58

NODE ATTRIBUTES:

NSPEC IS RC AT 64

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 59

STEREO ATTRIBUTES: NONE

L3 115 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 1924 ITERATIONS
SEARCH TIME: 00.00.35

115 ANSWERS

=> d his l3-

(FILE 'REGISTRY' ENTERED AT 09:24:25 ON 09 FEB 95)

L3 115 S L1 FUL
SAV L3 FONDA063/A

FILE 'HCAOLD' ENTERED AT 09:37:31 ON 09 FEB 95

L4 0 S L3

FILE 'HCAPREVIEWS' ENTERED AT 09:37:51 ON 09 FEB 95

L5 0 S L3 OR L3/D

FILE 'HCA' ENTERED AT 09:38:09 ON 09 FEB 95

L6 65 S L3 OR L3/D *all references*
E 116:228245/AN
L7 2 S E2,E3
E 121:286569/AN 5
L8 1 S E3
E 121:155760/AN 5
L9 1 S E3
E 121:148348/AN 5
L10 1 S E3
E 121:33081/AN 5
L11 1 S E3
E 121:893/AN 5
L12 1 S E3
E 120:52598/AN 5
L13 1 S E3
E 119:137234/AN 5
L14 1 S E3
E 119:131270/AN 5
L15 1 S E3
E 112:115640/AN 5
L16 1 S E3
E 109:66886/AN 5
L17 1 S E3
L18 12 S L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L1
L19 2 S L6 AND L18 *← applicants*
L20 26851 S INFLAMMATION INHIBITOR# OR ANTIINFLAMMAT? OR ANTI INFLA
L21 1308 S RESPIRATORY DISTRESS SYNDROME
L22 2637 S SEPSIS OR SEPTICEMIA
L23 1396 S NEOPLASM INHIBITOR# (L) METASTASIS
L24 2428 S SHOCK (L) (SEPTIC OR ENDOTOXIN#)
L25 949 S SHOCK (L) TOXIN# (L) ENDO

utility

from search #1

L26 18344 S LIPOSOME#
L27 5 S L6 AND (L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR L26)
L28 3 S L27 NOT L19
L29 → 2199 S SELECTIN#
L30 6 S L6 AND L29
L31 4 S L30 NOT L18
L32 6 S L28 OR L31
SELECT HIT RN L32 1-6

L33 FILE 'REGISTRY' ENTERED AT 09:47:37 ON 09 FEB 95
9 S E1-E9

FILE 'REGISTRY' ENTERED AT 09:50:31 ON 09 FEB 95

FILE 'HCA' ENTERED AT 09:50:34 ON 09 FEB 95

L34 10 S L3/P OR L3/DP
L35 6 S L6 (L) PREP#
L36 10 S L34 OR L35
L37 6 S L36 NOT (L18 OR L32)
SELECT HIT RN L37 1-6

L38 FILE 'REGISTRY' ENTERED AT 09:52:03 ON 09 FEB 95
15 S E10-E24

FILE 'REGISTRY' ENTERED AT 09:52:18 ON 09 FEB 95

=> fil hca

FILE 'HCA' ENTERED AT 09:52:44 ON 09 FEB 95
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FILE COVERS 1967 - 4 Feb 1995 (950204/ED) VOL 122 ISS 6

HCAPLUS IS NOW ONLINE! SEE NEWS FOR DETAILS
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCA' FILE

=> d l32 1-6 all

L32 ANSWER 1 OF 6 HCA COPYRIGHT 1995 ACS
AN 122:7681 HCA
TI E-selectin ligands mediate tumor necrosis factor-induced
neutrophil sequestration and pulmonary edema in guinea pig lungs
AU Lo, Siu K.; Bevilacqua, Michael B.; Malik, Arsar B.
CS Department of Medicine, Cornell Univ. Medical College, New York, NY,
10021, USA
SO Circ. Res. (1994), 75(6), 955-60
CODEN: CIRUAL; ISSN: 0009-7330
DT Journal
LA English
CC 15-5 (Immunochimistry)
Section cross-reference(s): 14
AB We have previously shown in perfused guinea pig lungs that tumor
necrosis factor-.alpha. (TNF-.alpha.) pretreatment of lungs enhanced
neutrophil sequestration as reflected by a 2.4-fold increase in lung

myeloperoxidase (MPO) activity. Subsequent perfusion of phorbol 12-myristate 13-acetate (PMA) to activate the sequestered neutrophils produced an approx. threefold increase in the pulmonary capillary hydrostatic pressure and fulminant pulmonary edema. Using this ex vivo model of lung injury, we studied the role of three putative E-selectin ligands, sialyl-Lewis X, Lewis X, and dimeric sialyl-Lewis X, in mediating neutrophil sequestration and pulmonary edema. We pretreated neutrophils with monoclonal antibodies (mAbs) directed against these E-selectin ligands. Pretreatment of neutrophils with mAbs to sialyl-Lewis X and Lewis X reduced the neutrophil sequestration, as evidenced by 45% and 27% redns. in MPO activity from control levels, resp. This occurred in parallel with inhibition of neutrophil adhesion to the TNF-.alpha.-activated endothelial cells in vitro. The mAbs to dimeric sialyl-Lewis X and an isotype-matched control mAb against lactosamines present on neutrophils had no effect on lung MPO activity and neutrophil adhesion. All mAbs to sialyl-Lewis X, Lewis X, and dimeric sialyl-Lewis X reduced the increases in the pulmonary capillary hydrostatic pressure after challenge of the sequestered neutrophils with PMA and also reduced lung wt. gain by 71%, 45%, and 38%, resp. The control mAb to the lactosamines had no effect on the pulmonary capillary hydrostatic pressure and lung wt. gain. These data indicate that E-selectin ligands contribute to the TNF-.alpha.-induced neutrophil sequestration in lungs and that adhesive interaction between E-selectin and sialyl-Lewis X and its related carbohydrates is crit. in the neutrophil-dependent increases in pulmonary vascular pressures and edema.

ST TNF selectin neutrophil sequestration lung edema

IT Neutrophil

(E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

IT Glycophosphoproteins

(E-selectins, E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

IT Lung, disease

(edema, E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

IT Hypertension

(pulmonary, E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

IT Lymphokines and Cytokines

(tumor necrosis factor-.alpha., E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

IT 71208-06-5 98603-84-0 139608-19-8

(E-selectin ligands mediate tumor necrosis factor-induced neutrophil sequestration and pulmonary edema in guinea pig lungs)

AN 122:6189 HCA
TI Isolation and Characterization of Natural Protein-Associated
Carbohydrate Ligands for E-Selectin
AU Patel, Thakor P.; Goelz, Susan E.; Lobb, Roy R.; Parekh, Raj B.
CS Oxford GlycoSystems, Blacklands Way/ Abingdon/ Oxon, OX14 1RG, UK
SO Biochemistry (1994), 33(49), 14815-24
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
CC 13-1 (Mammalian Biochemistry)
Section cross-reference(s): 6, 15
OS CJACS-IMAGE; CJACS
AB A comparative anal. of carbohydrate 'libraries' derived from cell
lines binding E-selectin with differing avidity identified probable
endogenous protein-assocd. carbohydrate ligand candidates for
E-selectin. Three unusual structures, which constitute less than 3%
of cell surface protein-assocd. carbohydrate, were unique to the
E-selectin-binding cells, including neutrophils and the monocytic
cell line U937. All are tetraantennary N-linked structures with a
NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.4(Fuc.alpha.1.fwdarw.3)GlcNAc
c.beta.1.fwdarw.3Gal.beta.1.fwdarw.4(Fuc.alpha.1.fwdarw.3)GlcNAc
lactosaminoglycan extension (diSLex) on the arm linked through the
C4 residue on the mannose. While all contained the expected SLex
[NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.4(Fuc.alpha.1.fwdarw.3)GlcNAc]
moiety, these structures have an addnl. fucosylated lactosamine
unit. Direct evidence that these diSLex-contg. structures are,
indeed, high-affinity ligands for E-selectin came from the use of
recombinant sol. E-selectin-agarose affinity chromatog. It was
found that these three carbohydrate structures bound specifically to
the E-selectin column. SLex itself does not bind under identical
conditions. In summary, these related structures: (1) all possess
an unusual 3-sialyl di-Lewis x extension on one arm of an N-linked
tetraantennary glycan; (2) of the cells tested, are present only on
E-selectin-binding leukocytes and leukocytic cell lines; (3) bind to
E-selectin with a relatively high affinity ($K_d < .\mu\text{M}$) and one
greater than that of 3-sialyl Lewis x or 3-sialyl Lewis a; and (4)
represent a very small percentage of the protein-assocd.
carbohydrate. These carbohydrate structures appear to be present on
only a very small no. of cell surface proteins and may alone be
responsible for the specificity of E-selectin-dependent adhesion.
ST carbohydrate ligand glycoprotein E selectin binding
IT Animal cell
(carbohydrate ligands on surface of cell in binding to E-
selectin)
IT Monocyte
(carbohydrate ligands on surface of monocyte in binding to E-
selectin)
IT Neutrophil
(carbohydrate ligands on surface of neutrophil in binding to E-
selectin)
IT Carbohydrates and Sugars, biological studies
(glycoproteins contg.; isolation and characterization of natural
protein-assocd. carbohydrate ligands for E-selectin)
IT Cell membrane

(isolation and characterization of natural membrane protein-assocd. carbohydrate ligands for E-selectin)

IT Leukocyte
Proteins, specific or class
Glycoproteins, biological studies
Ligands
(isolation and characterization of natural protein-assocd. carbohydrate ligands for E-selectin)

IT Glycophosphoproteins
(E-selectins, isolation and characterization of natural protein-assocd. carbohydrate ligands for E-selectin)

IT Blood-group substances
(Lea, isolation and characterization of natural protein-assocd. carbohydrate ligands for E-selectin)

IT Blood-group substances
(Lex, 3-sialyl deriv.; isolation and characterization of natural protein-assocd. carbohydrate ligands for E-selectin)

IT 159226-32-1D, glycoprotein contg. 159474-80-3D,
glycoprotein contg. 159564-58-6D, glycoprotein contg.
(E-selectin binding to carbohydrate of L937 cell surface)

IT 159218-35-6 159218-36-7 159218-37-8 159218-38-9 159218-39-0
159250-32-5 159250-33-6
(cell surface of leukocyte and other blood cells in relation to E-selectin binding)

L32 ANSWER 3 OF 6 HCA COPYRIGHT 1995 ACS
AN 120:261339 HCA
TI Immunosuppressive and tolerogenic oligosaccharide derivatives
IN Ippolito, Robert; Smith, Richard H.; Venot, Andre P.; Kashem, Mohammed A.
PA Alberta Research Council, Can.
SO PCT Int. Appl., 138 pp.
CODEN: PIXXD2
PI WO 9222301 A1 921223
DS W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
AI WO 92-CA244 920609
PRAI US 91-714161 910610
US 91-771259 911002
US 92-889017 920526
DT Patent
LA English
IC ICM A61K031-70
CC 1-7 (Pharmacology)
Section cross-reference(s): 33
OS MARPAT 120:261339
AB Methods of, and pharmaceutical compns. for, suppressing cell-mediated immune responses, including cell-mediated inflammatory responses, are disclosed. The disclosed methods and compns. employ blood group determinant-related oligosaccharide glycosides. Prepn. of these compns. is described. Thus, 8-methoxycarbonyloctyl(5-acetamido-3,5-dideoxy-.alpha.-D-glycero-D-galacto-2-nonulopyranosylonic acid)-(2-3)-O-.beta.-D-galactopyranosyl-(1-4)-O-

2-acetamido-2-deoxy-.beta.-D-glucopyranosyl-(1-3)-O-.beta.-D-galactopyranosyl-(1-4)-O-[.alpha.-L-fucopyranosyl-(1-3)-O]-2-acetamido-2-deoxy-.beta.-D-glucopyranoside (I) (prepn. given) reduced the delayed-type hypersensitivity inflammatory response in a mouse footpad swelling assay; mice injected with I had <50% of the footpad swelling of the control mice.

- ST blood group deriv oligosaccharide prep; immunosuppressant oligosaccharide glycoside; **inflammation inhibitor** oligosaccharide glycoside
- IT Sialic acids
(blood group determinant-related oligosaccharide glycosides contg., for suppression of cell-mediated immune response)
- IT Lymphocyte
(blood group determinant-related oligosaccharide glycosides for suppression of response of, to antigen)
- IT Immunosuppressants
(blood group determinant-related oligosaccharide glycosides, prep. of, for cell-mediated immune response)
- IT **Inflammation inhibitors**
(blood group determinant-related oligosaccharide glycosides, prep. of, immunosuppression in relation to)
- IT Oligosaccharides
(blood group determinant-related, prep. of, as immunosuppressants for cell-mediated immune response)
- IT Antigens
(lymphocyte response to, blood group determinant-related oligosaccharide glycosides for suppression of)
- IT Blood-group substances
(oligosaccharide glycosides related to, prep. of, as immunosuppressants for cell-mediated immune response)
- IT Antibodies
(to herpes simplex virus, formation of, sialyl Lewis X antigen effect on, blood group determinant-related oligosaccharide glycoside prep. for immunosuppressant in relation to)
- IT Glycophosphoproteins
(E-selectins, cell adhesion to vascular endothelium dependent on, blood group determinant-related synthetic oligosaccharide glycoside effect on)
- IT Adhesion
(bio-, ELAM-1-dependent, to vascular endothelium, blood group determinant-related synthetic oligosaccharide glycoside effect on)
- IT Allergy
(delayed hypersensitivity, blood group determinant-related oligosaccharide glycosides for suppression of)
- IT Blood vessel
(endothelium, ELAM-1-dependent cell adhesion to, blood group determinant-related synthetic oligosaccharide glycoside effect on)
- IT Virus, animal
(herpes simplex, antibodies to, formation of, sialyl Lewis X antigen effect on, blood group determinant-related oligosaccharide glycoside prep. for immunosuppressant in relation to)

IT Lung, disease
(injury, from lipopolysaccharide, oligosaccharide glycoside immunosuppressant effect on)

IT 50-99-7, Glucose, biological studies 59-23-4, Galactose, biological studies 1811-31-0, N-Acetylgalactosamine 2438-80-4, Fucose 6696-41-9, .alpha.-L-Fucose 6696-41-9D, .alpha.-L-Fucose, derivs. 7296-64-2D, .beta.-D-Galactose, sialic acid derivs. 7512-17-6, N-Acetylglucosamine 14131-68-1D, .beta.-N-Acetyl-D-glucosamine, sialic acid derivs.
(blood group determinant-related oligosaccharide glycosides contg., for suppression of cell-mediated immune response)

IT 136514-66-4D, derivs.
(immunosuppressant activity of, blood group determinant-related oligosaccharide glycoside prepn. for immunosuppressant in relation to)

IT 9001-67-6, Neuraminidase 9067-82-7 9075-81-4 80237-98-5
(in oligosaccharide glycoside prepn. for immunosuppressant)

IT 71036-41-4D, derivs.
(lipopolysaccharide-induced lung injury inflammatory response redn. by)

IT 146-91-8P, Guanosine 5'-(trihydrogen diphosphate) 19342-75-7P
23221-66-1P 57777-97-6P 139551-67-0P 146369-11-1P
146369-14-4P 146369-15-5P 146369-16-6P 146369-17-7P
146369-18-8P 146369-19-9P 146369-20-2P 146369-31-5P
146369-34-8P 146369-41-7P **146663-81-2P**
146663-82-3P 148887-39-2P 148912-40-7P 148912-41-8P
148942-51-2P 148942-52-3P 148942-54-5P 148942-55-6P
148942-56-7P 148942-57-8P 148980-37-4P 149055-23-2P
149056-37-1P
(prepn. and reaction of, in oligosaccharide glycoside prepn. for immunosuppressant)

IT 146369-59-7P **146663-84-5P 146663-88-9P**
148912-31-6P
(prepn. of, for oligosaccharide glycoside for immunosuppressant)

IT 25878-27-7P 55569-66-9P 98300-80-2P 112037-53-3P
114973-47-6P 128473-09-6P 140659-95-6P 145080-34-8P
146369-12-2P 146369-20-2P 146369-21-3P 146369-22-4P
146369-23-5P 146369-24-6P 146369-25-7P 146369-26-8P
146369-35-9P 146369-36-0P 146369-41-7P 146369-49-5P
146369-60-0P 146397-25-3P 146663-83-4P 146687-13-0P
148887-41-6P 148887-42-7P 148906-89-2P 148912-39-4P
148912-42-9P 148968-25-6P 148968-26-7P 148968-27-8P
148968-28-9P 148968-29-0P 148969-25-9P 148969-26-0P
148969-27-1P 148969-28-2P 148969-29-3P 148969-30-6P
148969-31-7P 149055-22-1P 149056-35-9P 149056-36-0P
149252-05-1P 149252-06-2P 149252-92-6P 149252-93-7P
(prepn. of, for oligosaccharide glycoside prepn. for immunosuppressant)

IT 123-62-6, Propionic anhydride 3063-71-6 7361-07-1 15839-70-0, GDP-fucose 16741-27-8 18162-48-6, tert-Butyldimethylsilyl chloride 25878-27-7 27607-77-8, Trimethylsilyltrifluoromethanesulfonate 28283-68-3 56867-18-6 63000-69-1 64160-39-0
67670-69-3 70761-83-0 73793-07-4 86520-63-0 99395-99-0
117193-36-9 120104-31-6 122290-69-1 122290-72-6 146369-29-1

146369-36-0 148906-88-1
(reaction of, in oligosaccharide glycoside prepn. for immunosuppressant)

IT 111-29-5, 1,5-Pentanediol
(reaction of, with allyl bromide)

IT 100-51-6, Benzyl alcohol, reactions
(reaction of, with glycosyl chloride)

IT 106-95-6, Allyl bromide, reactions
(reaction of, with pentanediol)

IT 2052-49-5, Tetra-n-butylammonium hydroxide
(reaction of, with phosphoric acid)

IT 50-18-0, Cyclophosphamide
(sialyl Lewis X immunosuppression induction in presence of, blood group determinant-related oligosaccharide glycoside prepn. for immunosuppressant in relation to)

L32 ANSWER 4 OF 6 HCA COPYRIGHT 1995 ACS
AN 120:153713 HCA
TI Reducing inflammation by time-dependent administration of oligosaccharide glycosides related to blood group determinants
IN Ippolito, Robert M.; Haque, Wasimul; Jiang, Cong; Hanna, H. Rizk; Venot, Andre P.; Nikrad, Pandurang V.; Kashem, Mohammed A.; Smith, Richard H.; Srivastava, Om P.
PA Alberta Research Council, Can.
SO PCT Int. Appl., 282 pp.
CODEN: PIXXD2
PI WO 9324505 A1 931209
DS W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 93-US4909 930524
PRAI US 92-889017 920526
US 92-895930 920609
US 92-988518 921210
DT Patent
LA English
IC ICM C07H015-00
ICS C07H015-06; C07H011-02; C07H013-06
CC 1-7 (Pharmacology)
Section cross-reference(s): 15, 33
OS MARPAT 120:153713
AB Disclosed are methods for reducing the degree of antigen-induced inflammation in a sensitized mammal. The disclosed methods employ oligosaccharide glycosides related to blood group determinants having a type I or type II core structure wherein the administration of such oligosaccharide glycosides is after initiation of the mammal's immune response but at or prior to one-half the period of time required to effect maximal antigen-induced inflammation. Mice injected with sialyl Lewisx-O(CH₂)₈CO₂CH₃ had the most redn. in the footpad swelling assay for inhibition of DTH inflammatory response compared to control mice. The treatment also imparts tolerance to still later challenges from the same antigen. Prepn. of oligosaccharide glycosides is described.
ST antigen induced inflammation redn oligosaccharide glycoside; blood group substance I glycoside **antiinflammatory**

- IT Brain, composition
(CMP-sialic acid synthase of, of calf, purifn. and use in prepn. of oligosaccharide glycosides related to blood group determinants I or Ii core structures)
- IT Oligosaccharides
(glycosides, related to blood group determinants I or Ii core structures, for redn. of inflammation from secondary immune response due to antigen, administration time in relation to)
- IT Asthma
Dermatitis
Multiple sclerosis
Pneumonia
Psoriasis
(inflammation in, redn. of, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)
- IT Inflammation inhibitors
(oligosaccharide glycosides related to blood group determinants I or Ii core structures as, against secondary immune response due to antigen, administration time in relation to)
- IT Glycosides
(oligosaccharides, related to blood group determinants I or Ii core structures, for redn. of inflammation from secondary immune response due to antigen, administration time in relation to)
- IT Antigens
(redn. of inflammation from secondary immune response to, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)
- IT Immunity
(secondary, to antigen, inflammation from, redn. of, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)
- IT Liver, composition
(sialyltransferases purifn. from, of rat, for use in prepn. of oligosaccharide glycosides related to blood group determinants I or Ii core structures)
- IT Immune tolerance
(with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)
- IT Blood-group substances
(I, oligosaccharide glycosides related to, for redn. of inflammation from secondary immune response due to antigen, administration time in relation to)
- IT Blood-group substances
(Ii, oligosaccharide glycosides related to, for redn. of inflammation from secondary immune response due to antigen, administration time in relation to)
- IT Lymphocyte
(T-cell, suppressor cell, sensitive to cyclophosphamide, tolerance induced by methoxycarbonyloctyl glycoside of sialyl Lewisx mediation by)
- IT Pneumonia
(bacterial, inflammation in, redn. of, with oligosaccharide

glycosides related to blood group determinants I or Ii core structures, administration time in relation to)

IT Allergy
(delayed hypersensitivity, inflammation in, redn. of, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)

IT Milk
(human, fucosyltransferase purifn. from, for use in prepn. of oligosaccharide glycosides related to blood group determinants I or Ii core structures)

IT Intestine, disease
(inflammatory, inflammation in, redn. of, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)

IT Arthritis
(rheumatoid, inflammation in, redn. of, with oligosaccharide glycosides related to blood group determinants I or Ii core structures, administration time in relation to)

IT 82993-39-3 122290-69-1 122290-72-6 122290-73-7 122290-74-8
146663-88-9 148076-40-8 148076-41-9 148076-46-4
 148076-47-5 152480-48-3 153232-50-9 153344-09-3 153381-90-9
 (delayed-type hypersensitivity inflammatory response redn. by, in mouse)

IT 9001-67-6D, Neuraminidase, agarose-immobilized 9001-78-9, Alkaline phosphatase 56626-18-7, Fucosyltransferase 71124-51-1
 (in prepn. of oligosaccharide glycosides related to blood group determinants I or Ii core structures)

IT 9030-11-9
 (in prepn. of oligosaccharide glycosides related to blood group determinants I or Ii core structures, of bovine milk)

IT 4163-60-4P 10022-13-6P 10028-45-2P 14086-90-9P 15964-51-9P
 16562-59-7P 19342-74-6P 23221-66-1P 24332-95-4P 25878-27-7P
 38874-23-6P 55692-90-5P 56343-03-4P 57777-97-6P 63407-53-4P
 65567-18-2P 77111-92-3P 117193-31-4P 139551-67-0P
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146663-81-2P 146663-82-3P 146663-83-4P
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 148225-98-3P 148225-99-4P 148226-00-0P 148246-04-2P
 148246-05-3P 148529-84-4P 148529-85-5P 148942-55-6P
 151958-07-5P 152480-29-0P 152480-30-3P 152480-31-4P
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 153232-53-2P 153232-54-3P 153323-36-5P 153323-37-6P
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153323-42-3P 153323-43-4P 153323-44-5P 153323-45-6P
 153323-46-7P 153323-47-8P 153323-48-9P 153323-49-0P
 153323-50-3P 153323-51-4P 153363-85-0P 153381-20-5P
 (prepn. and reaction of, in prepn. of oligosaccharide glycosides
 related to blood group determinants I or Ii core structures)
 IT 84439-59-8P 148225-85-8P 148225-86-9P
 (prepn. of)
 IT 152480-48-3P 152480-50-7P 152480-55-2P 152480-57-4P
 153232-29-2P
 (prepn. of, as intermediate in prepn. of oligosaccharide
 glycosides related to blood group determinants I or Ii core
 structures)
 IT 153232-51-0P 153232-52-1P
 (prepn. of, in prepn. of oligosaccharide glycosides related to
 blood group determinants I or Ii core structures)
 IT 15839-70-0P 98300-80-2P 112037-53-3P 114973-47-6P
 128473-11-0P 146369-21-3P 146369-23-5P 146369-24-6P
 146369-25-7P 146369-26-8P 146369-35-9P 146369-37-1P
 146369-38-2P 146369-39-3P 146369-41-7P 146369-42-8P
 146369-43-9P 146369-44-0P 146369-45-1P 146369-46-2P
 146369-47-3P 146369-48-4P 146369-49-5P 146369-50-8P
 146369-51-9P 146369-52-0P 146369-53-1P 146369-54-2P
 146369-55-3P 146369-56-4P 146369-57-5P 146369-59-7P
 146369-61-1P 146389-83-5P 146397-25-3P 146397-26-4P
 146452-47-3P 146663-84-5P 146663-88-9P
 146687-14-1P 148076-40-8P 148076-41-9P 148076-42-0P
 148076-46-4P 148076-47-5P 148225-88-1P 148226-01-1P
 148529-87-7P 148912-41-8P 153232-55-4P 153232-56-5P
 153232-57-6P 153232-58-7P 153232-65-6P 153232-66-7P
 153232-67-8P 153232-68-9P 153323-52-5P 153323-54-7P
 (prepn. of, prepn. of oligosaccharide glycosides related to blood
 group determinants I or Ii core structures in relation to)
 IT 37277-69-3P
 (purifn. from human milk and use of, in prepn. of oligosaccharide
 glycosides related to blood group determinants I or Ii core
 structures)
 IT 9075-81-4P 80237-98-5P
 (purifn. from rat liver and use of, in prepn. of oligosaccharide
 glycosides related to blood group determinants I or Ii core
 structures)
 IT 9067-82-7P
 (purifn. of, from calf brain and use in prepn. of oligosaccharide
 glycosides related to blood group determinants I or Ii core
 structures)
 IT 59-23-4, D-Galactose, reactions 65-47-4, Cytidine triphosphate
 66-84-2, Glucosamine hydrochloride 77-76-9, 2,2-Dimethoxypropane
 100-44-7, Benzyl chloride, reactions 100-53-8, Benzyl mercaptan
 106-54-7 106-95-6, Allyl bromide, reactions 111-29-5,
 1,5-Pentanediol 123-62-6, Propionic anhydride 1125-88-8,
 Benzaldehyde dimethyl acetal 2052-49-5 2438-80-4, L-Fucose
 2956-16-3, UDP-Galactose 3068-32-4 7361-07-1 19342-33-7
 24332-95-4 28283-68-3 33639-77-9 34957-73-8,
 8-Methoxycarbonyloctanol 55569-66-9 59367-09-8 64160-39-0
 68124-18-5 70761-83-0 70831-94-6 73793-07-4 75247-29-9

79063-80-2 86520-63-0 99395-99-0 117193-36-9 120104-31-6
 122290-74-8 123558-64-5 126168-70-5 126188-91-8 146369-26-8
 146369-29-1 146369-36-0 146728-55-4 153232-28-1 153232-59-8
 153232-60-1 153232-61-2 153232-62-3 153232-63-4 153232-64-5
 153232-69-0

(reaction of, in prepn. of oligosaccharide glycosides related to blood group determinants I or II core structures)

IT 50-18-0, Cyclophosphamide
 (tolerance induced by methoxycarbonyloctyl glycoside of sialyl Lewisx mediation by suppressor T-cells sensitive to)

L32 ANSWER 5 OF 6 HCA COPYRIGHT 1995 ACS

AN 119:181115 HCA

TI Ligand recognition by E-selectin: analysis of conformation and activity of synthetic monomeric and bivalent sialyl Lewis X analogs

AU DeFrees, Shawn A.; Gaeta, Federico C. A.; Lin, Ying Chih; Ichikawa, Yoshitaka; Wong, Chi Huey

CS Cytel Corp., San Diego, CA, 92121, USA

SO J. Am. Chem. Soc. (1993), 115(16), 7549-50

CODEN: JACSAT; ISSN: 0002-7863

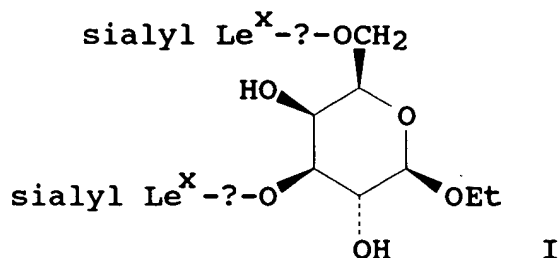
DT Journal

LA English

CC 33-7 (Carbohydrates)

OS CJACS-IMAGE; CJACS

GI



AB Sialyl Lewis x glycal was found to be as active as sialyl Lewis x as an inhibitor of E-selectin-mediated adhesion (IC₅₀ = 2.1 mM). The nonasaccharide I, comprising 2 sialyl Lewis x glycotopes anchored on a galactose residue via .beta.-1,3- and .beta.-1,6-linkages is, however, 5-fold better than sialyl Lewis x and 4-fold better than the pentasaccharide sialyl Lewis x-.beta.1,3Gal.beta.OEt, suggesting a multivalent ligand-receptor interaction. I was prepd. by sequential enzymic glycosylation (addn. of 2 same sugar units each time!) of the chem. synthesized trisaccharide GlcNAc.beta.1,4(GlcNAc.beta.1,6)Gal.beta.OEt using .beta.1,4 galactosyltransferase, .alpha.2,3-sialyltransferase and .alpha.1,3-fucosyltransferase, and 2 equiv each of the corresponding sugar nucleotides. Conformational anal. with NMR of the glycal and the bivalent sialyl Lewis x indicates a single rigid and identical structure in the Neu5Ac-Gal-Fuc region. This study together with

the information obtained from other analogs reveals that the active binding domain of sialyl Lewis x comes from a 10 .ANG.-space area composed of Gal, Fuc and the -CO₂- group of Neu5Ac. The exo-anomeric effects of Gal and Fuc fix the topog. structure of these 2 residues when attached to an ethylene glycol unit via .beta.- and .alpha.-glycosidic linkages, resp.

ST sialyl Lewis x glycal; mol recognition Lewis glycal; ligand recognition **selectin**

IT Glycophosphoproteins

(E-selectins, mol. recognition by, of sialyl Lewisx analogs)

IT Molecular association

(mol. recognition, of sialyl Lewis X analogs by E-selectin)

IT 136514-66-4

(binding of, by E-selectin)

IT 149713-21-3P 149713-22-4P

(intermediate in prepn. of bivalent sialyl Lewisx)

IT 142800-36-0P 149713-19-9P

(prepn. and binding of, by E-selectin)

IT 2956-16-3P 3063-71-6P 15839-70-0P 149713-20-2P

(reactant in prepn. of bivalent sialyl Lewisx)

L32 ANSWER 6 OF 6 HCA COPYRIGHT 1995 ACS

AN 119:26822 HCA

TI Enzymic synthesis of monofucosylated oligosaccharides terminating in di-N-acetyllactosaminy structures and their use for suppression of cell-mediated immune response in mammals

IN Venot, Andre P.; Kashem, Mohammed A.; Smith, Richard H.

PA Alberta Research Council, Can.

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

PI WO 9222662 A1 921223

DS W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE

AI WO 92-CA251 920610

PRAI US 91-714161 910610

US 91-771259 911002

US 92-889017 920526

DT Patent

LA English

IC ICM C12P019-26

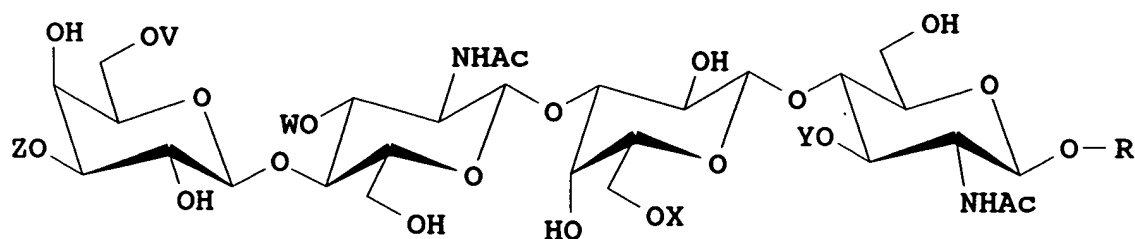
ICS C07H015-04; C07H003-06; A61K039-385

CC 16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 1, 33

OS MARPAT 119:26822

GI



I

- AB Monofucosylated oligosaccharides I (V,W,X=H; Y=L-fucose; Z=sialic acid; R=aglycon) are prep'd. from I (V=blocking group; Z,Y,W,X=H; R=aglycon) by fucosylating with an α -(1 \rightarrow 3)fucosyltransferase, removal of the blocking group, and sialylation with an α -(2 \rightarrow 3)-sialyltransferase. Compds. I (V,X,Y=H; W=L-fucose; Z=sialic acid; R=aglycon) are prep'd. in a similar manner. The monofucosylated oligosaccharides can be used in pharmaceuticals for parenteral administration to suppress an inflammatory or delayed-type hypersensitivity response, or for induction of antigen tolerance. Compd. I (V,W,X=H; Y=L-fucose; Z=sialic acid; R=(CH₂)₈CO₂CH₃) was prep'd. as described and tested for biol. activity. In a mouse footpad swelling assay, mice injected with the hexasaccharide displayed <50% of the footpad swelling of the control mice. This suppression of the inflammatory response was still evident after 11 wk. The compd. also inhibited ELAM-1 dependent binding to human umbilical vein endothelial cells.
- ST oligosaccharide monofucosylated enzymic synthesis; immunosuppressant monofucosylated oligosaccharide; **inflammation inhibitor** monofucosylated oligosaccharide; fucosyltransferase monofucosylated oligosaccharide synthesis; sialyltransferase monofucosylated oligosaccharide synthesis
- IT Mammal
(immunosuppressants for, monofucosylated oligosaccharide as)
- IT Immune tolerance
(induction of, monofucosylated oligosaccharides for)
- IT Immunosuppressants
Inflammation inhibitors
(monofucosylated oligosaccharides as, enzymic prepn. of)
- IT Allergy
(delayed hypersensitivity, suppression of, monofucosylated oligosaccharides for)
- IT Pharmaceutical dosage forms
(parenterals, monofucosylated oligosaccharides for use in, enzymic prepn. of)
- IT 39279-34-0
(in monofucosylated oligosaccharide enzymic synthesis)
- IT 9001-67-6, Neuraminidase 37277-69-3 83745-04-4 83745-05-5
(monofucosylated pentasaccharide immunosuppressant prepn. with)
- IT 15839-70-0P, GDP-fucose 16562-59-7P 23221-66-1P 128473-11-0P
146369-59-7P 146369-60-0P **146663-81-2P**
146663-82-3P 146663-83-4P 146663-85-6P 146663-86-7P

146663-87-8P 146687-13-0P 146687-14-1P 146687-15-2P
146687-16-3P 146687-17-4P
(prepn. and reaction of, in prepn. of monofucosylated
pentasaccharide immunosuppressant)

IT 146663-88-9P

(prepn. of, enzymic, for use as immunosuppressant)

IT 146663-84-5P

(prepn. of, enzymic, for use as immunosuppressant)

IT 7361-07-1

(reaction of, in GDP-fucose prepn.)

IT 2052-49-5, Tetra-N-butylammonium hydroxide 2956-16-3 3063-71-6
7664-38-2, Phosphoric acid, reactions 34957-73-8,
8-Methoxycarbonyloctanol 68124-18-5 80483-13-2 130858-55-8
146369-29-1 146728-55-4

(reaction of, in prepn. of monofucosylated pentasaccharide
immunosuppressant)

=> d 137 1-6 all

L37 ANSWER 1 OF 6 HCA COPYRIGHT 1995 ACS

AN 121:9885 HCA

TI Chemoenzymic synthesis of sialylated and fucosylated
oligosaccharides having an N-acetyllactosaminyl core

AU Kashem, Mohammed A.; Wlasichuk, Kenneth B.; Gregson, Jonathan M.;
Venot, Andre P.

CS Carbohydr. Res. Program., Alberta Res. Counc., Edmonton, AB, T6H
5X2, Can.

SO Carbohydr. Res. (1993), 250(1), 129-44
CODEN: CRBRAT; ISSN: 0008-6215

DT Journal

LA English

CC 33-8 (Carbohydrates)

Section cross-reference(s): 7, 9

OS CASREACT 121:9885; CJELSEVIER

AB Several sialylated and fucosylated oligosaccharides, based upon the
N-acetyllactosaminyl core structure, have been synthesized from a
single trisaccharide glycoside, .beta.-D-GlcNAc-(1.fwdarw.3)-.beta.-
D-Gal-(1.fwdarw.4)-.beta.-D-GlcNAc-OCH2(CH2)7CO2CH3, by the
sequential use of several glycosyltransferases and one sialidase.
In these chemoenzymic syntheses, selective internal monofucosylation
of a dimeric N-acetyl-lactosaminyl tetrasaccharide is achieved via
two routes. It is demonstrated that the pentasaccharide
.beta.-D-Gal-(1.fwdarw.4)-.beta.-D-GlcNAc-(1.fwdarw.3)-.beta.-D-Gal-
(1.fwdarw.4)-[.alpha.-L-Fuc-(1.fwdarw.3)]-.beta.-D-GlcNAc-OCH2(CH2)7-
CO2CH3 is an acceptor for the rat liver .beta.-D-Gal-(1.fwdarw.3/4)-
D-GlcNAc .alpha.2,3- and .beta.-D-Gal-(1.fwdarw.4)-D-GlcNAc
.alpha.2,6-sialyltransferases. Among the structures obtained is the
terminal hexasaccharide of the CD-65/VIM-2 epitope.

ST transglycosidation oligosaccharide galactosyltransferase;
transsialylation oligosaccharide sialyltransferase

IT Oligosaccharides

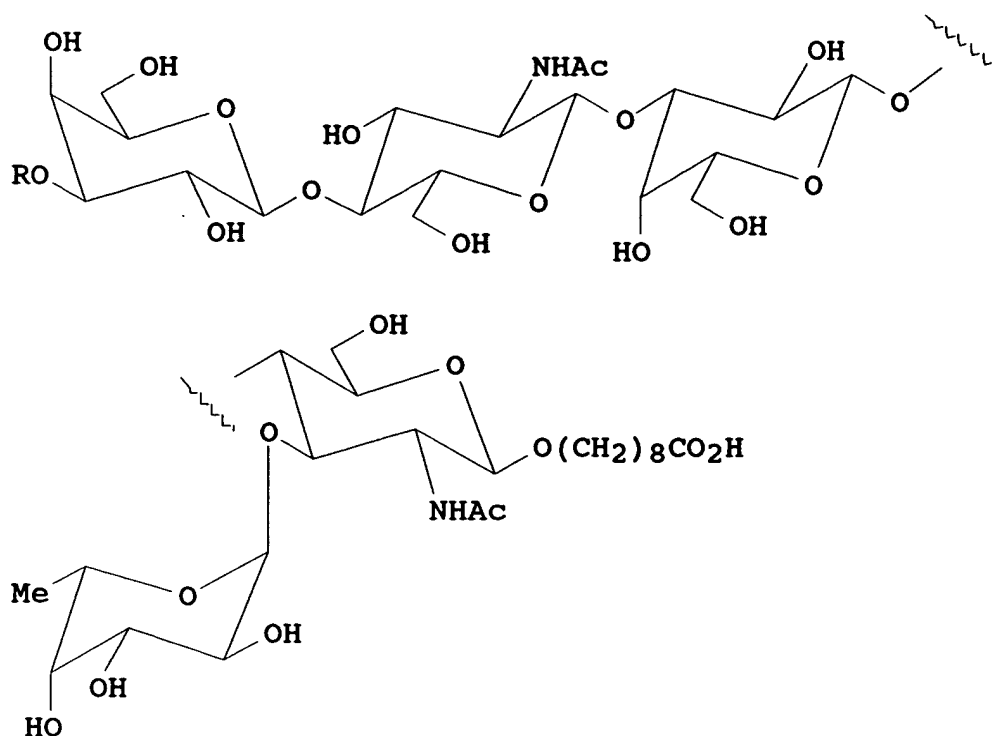
(enzymic transglycosidation and trans-sialylation of)

IT Glycosidation

(sialylation, trans-, sialyltransferase, of oligosaccharides)

IT Glycosidation
 (trans-, galactosyltransferase, of oligosaccharides)
IT 73793-07-4
 (enzymic trans-sialylation of)
IT 71124-50-0 83745-04-4
 (enzymic trans-sialylation of oligosaccharides in presence of)
IT 9054-94-8 37277-69-3
 (enzymic transglycosidation of oligosaccharides in presence of)
IT 2956-16-3 3063-71-6 15839-70-0
 (enzymic transglycosidation of, with oligosaccharides)
IT 34957-73-8, 8-Methoxycarbonyloctanol 68124-18-5
 (glycosidation of)
IT 146369-29-1P 146663-81-2P 146663-82-3P
 146663-83-4P 146687-13-0P
 (prepn. and enzymic trans-sialylation of)
IT 146369-60-0P 146663-87-8P 155689-17-1P
 (prepn. and enzymic transglycosidation)
IT 151958-07-5P
 (prepn. and enzymic transglycosidation and transsialylation of)
IT 146663-85-6P 146663-86-7P 146687-15-2P 146687-16-3P
 146687-17-4P 153232-44-1P 155689-16-0P
 (prepn. and reaction of, in synthesis of sialylated and
 fucosylated oligosaccharides having an N-acetyllactosaminy core)
IT 146663-84-5P 146663-88-9P 151958-10-0P
 152501-27-4P
 (prepn. of)
IT 146728-55-4
 (reaction of, in synthesis of sialylated and fucosylated
 oligosaccharides having an N-acetyllactosaminy core)

L37 ANSWER 2 OF 6 HCA COPYRIGHT 1995 ACS
AN 119:203708 HCA
TI Combined chemical-enzymic synthesis of an internally monofucosylated
hexasaccharide corresponding to the CD-65/VIM-2 epitope: use of a
terminal .alpha.(2.fwdarw.6)-linked N-acetylneuraminic acid as a
temporary blocking group
AU Kashem, Mohammed A.; Jiang, Cong; Venot, Andre P.; Alton, Gordon R.
CS Chembiomed Ltd., Edmonton, AB, T6H 4N9, Can.
SO Carbohydr. Res. (1992), 230(2), C7-C10
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
CC 33-8 (Carbohydrates)
Section cross-reference(s): 7, 9
OS CJELSEVIER
GI



I

AB The hexasaccharide I (R = .alpha.Neu5Ac) determinant of the VIM-2
epitope, was prep'd. via Gal.beta.(1.fwdarw.4)GlcNAc
.alpha.(2.fwdarw.6)sialyltransferase-catalyzed glycosidation of
ST oligosaccharide glycosidation neuraminic acid enzymic; sialyl Lewis
X dimer
IT Glycosidation
(enzymic, of oligosaccharide with neuraminic acid)
IT Sialic acids
(oligosaccharide-contg., prepn. of)
IT 15839-70-0 149417-21-0
(coupling of, with oligosaccharide, enzymic)
IT 9001-67-6, Sialidase
(desialylation of oligosaccharide in presence of)
IT 146369-29-1
(enzymic glycosidation of, with neuraminic acid)
IT 37277-69-3
(fucosidation of oligosaccharide in presence of)
IT 83745-05-5
(glycosidation of tetrasaccharide with neuraminic acid in
presence of)
IT 146663-83-4P 146687-13-0P
(prepn. and coupling of, with neuraminic acid)
IT **149417-16-3P 150509-56-1P**
(**prepn.** and desialylation of, enzymic)
IT 149417-19-6P
(prepn. and enzymic glycosidation of)

IT 149432-53-1P
(prepn. and fucosidation of, enzymic)

IT 149417-20-9P
(prepn. of)

IT 149417-17-4P 149417-18-5P
(prepn. of, as determinant of VIM-2 epitope)

IT 83745-04-4
(sialylation of oligosaccharide in presence of)

L37 ANSWER 3 OF 6 HCA COPYRIGHT 1995 ACS
AN 119:3464 HCA
TI Isolation and structural characterization of novel sialylated oligosaccharide-alditols from respiratory-mucus glycoproteins of a patient suffering from bronchiectasis
AU Klein, Andre; Carnoy, Christophe; Lamblin, Genevieve; Roussel, Philippe; Van Kuik, J. Albert; Vliegenthart, Johannes F. G.
CS Unite Prot., Inst. Natl. Sante Rech. Med., Lille, Fr.
SO Eur. J. Biochem. (1993), 211(3), 491-500
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
CC 6-4 (General Biochemistry)
Section cross-reference(s): 33

AB The carbohydrate chains of the respiratory-mucus glycoproteins of a patient (blood group O) suffering from bronchiectasis due to Kartagener's syndrome, were released by alk. borohydride treatment of a pronase digest. The structures of 82 neutral and low-mol.-mass sialylated oligosaccharides have been described previously. In the present work, medium-size sialylated oligosaccharides were obtained after ion-exchange chromatog. and were subsequently sepd. into 36 fractions utilizing gel filtration, HPLC on normal-phase alkylamine-bonded silica and reverse-phase HPLC. From these fractions, six sialylated hepta- and octa-saccharide-alditols were characterized by employing 500-MHz 1H-NMR spectroscopy, in conjunction with fast-atom-bombardment mass spectroscopy and methylation anal.

ST sialylated oligosaccharide structure respiratory mucus glycoprotein
IT Mucins
(sialooligosaccharides of, of human, isolation and structural characterization of)

IT Respiratory tract
(mucosa, sialooligosaccharides of mucins of, of human, isolation and structural characterization of)

IT Oligosaccharides
(sialo-, branched, of respiratory-mucus glycoproteins, of human in bronchiectasis, isolation and structural characterization of)

IT 118447-83-9P 147859-75-4P 147859-76-5P 147893-96-7P
147893-97-8P 147893-98-9P
(of respiratory-mucus glycoproteins, of human in bronchiectasis, isolation and structural characterization of)

L37 ANSWER 4 OF 6 HCA COPYRIGHT 1995 ACS
AN 117:108641 HCA
TI Structural analysis of five new monosialylated oligosaccharides from

- human milk
AU Groenberg, Gunnar; Lipniunas, Peter; Lundgren, Torgny; Lindh, Frank; Nilsson, Bo
CS BioCarb Technol. AB, Lund, S-233 70, Swed.
SO Arch. Biochem. Biophys. (1992), 296(2), 597-610
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA English
CC 13-1 (Mammalian Biochemistry)
Section cross-reference(s): 17, 33
AB The total monosialylated oligosaccharide fraction from pooled human milk was isolated by gel filtration and ion-exchange chromatog. Further sepn. by HPLC using a mobile phase contg. an ion-pairing reagent of triethylamine gave five new monosialylated oligosaccharides. Complete structures for these five new monosialylated oligosaccharides were derived from chem. and spectral anal.
ST sialo oligosaccharide structure milk
IT Nuclear magnetic resonance
(of monosialylated oligosaccharides, proton and carbon-13)
IT Milk
(human, sialo oligosaccharides of, purifn. and structure detn. of)
IT Oligosaccharides
(sialo-, of milk, of human, purifn. and structure detn. of)
IT 1333-74-0 14762-74-4
(nuclear magnetic resonance, of monosialylated oligosaccharides, proton and carbon-13)
IT 143033-13-OP 143033-14-1P 143033-15-2P
143033-16-3P 143033-17-4P
(of milk, of human, purifn. and structure detn. of)
- L37 ANSWER 5 OF 6 HCA COPYRIGHT 1995 ACS
AN 117:22138 HCA
TI The broad diversity of neutral and sialylated oligosaccharides derived from human salivary mucins
AU Klein, Andre; Carnoy, Christophe; Wieruszeski, Jean Michel; Strecker, Gerard; Strang, Anne Marie; Van Halbeek, Herman; Roussel, Philippe; Lamblin, Genevieve
CS INSERM, Lille, 59045, Fr.
SO Biochemistry (1992), 31(26), 6152-65
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
CC 6-4 (General Biochemistry)
Section cross-reference(s): 13, 33
OS CJACS-IMAGE; CJACS
AB Mucin glycopeptides were prepd. from the salivary mucins of 20 healthy donors with blood group O. The carbohydrate chains of the high-mol.-wt. mucins were released by alk. borohydride treatment. Neutral and monosialylated oligosaccharide-alditols were purified by ion-exchange chromatog., gel filtration, and HPLC. The structures of the oligosaccharide-alditols were detd. by high-resoln. 1H-NMR spectroscopy in combination with fast-atom bombardment mass

spectrometry and methylation anal. Thirty-seven oligosaccharide-alditols were characterized and illustrate the extreme diversity of the salivary mucins carbohydrate chains. This diversity might represent a mosaic of bacterial adhesion sites and be involved in the early events of the nonimmune defenses of the oral cavity. Among these 37 oligosaccharide-alditols, 31 have not been previously described in human saliva.

ST mucin oligosaccharide structure saliva
IT Oligosaccharides
 (of mucin, of human saliva, isolation and characterization of)
IT Saliva
 (oligosaccharides of mucins of, of human, isolation and
 characterization of)
IT Mucins
 (oligosaccharides of, of human saliva, isolation and structure
 detn. of)
IT Blood-group substances
 (O, oligosaccharides of mucins of human saliva structure and
 properties in relation to)
IT Oligosaccharides
 (sialo-, of mucin, of human saliva, isolation and
 characterization of)
IT 57123-29-2P 57173-14-5P 60174-22-3P 60174-24-5P 60174-25-6P
67529-82-2P 68314-59-0P 68366-21-2P 70268-06-3P 75446-07-0P
75472-69-4P 75520-90-0P 80045-66-5P 81490-12-2P 81490-13-3P
81490-16-6P 83475-29-0P 83475-30-3P 83475-31-4P 83475-32-5P
83475-33-6P 83475-34-7P 83475-35-8P 91173-50-1P 92265-52-6P
92265-56-0P 94426-18-3P 99447-47-9P 112388-82-6P
141634-86-8P 141634-88-0P 141634-89-1P 141634-90-4P
141634-91-5P 141634-92-6P 141634-93-7P 141634-94-8P
 (of mucin, of human saliva, isolation and characterization of)

L37 ANSWER 6 OF 6 HCA COPYRIGHT 1995 ACS
AN 116:214800 HCA
TI Total synthesis of sialyl dimeric Lex
AU Nicolaou, K. C.; Hummel, C. W.; Iwabuchi, Y.
CS Dep. Chem., Scripps Res. Inst., La Jolla, CA, 92037, USA
SO J. Am. Chem. Soc. (1992), 114(8), 3126-8
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
CC 33-4 (Carbohydrates)
OS CJACS-IMAGE; CJACS
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Oligosaccharide I a deriv. of the ELAM-1 binding ligand sialyl dimeric Lex, was efficiently synthesized from building blocks II, III (NPhth = phthalimido, NB = 2-NO₂C₆H₄CH₂, Bn = PhCH₂), and IV via stereoselective synthesis of appropriate intermediates.

ST oligosaccharide sialyl dimeric Lex total synthesis; ELAM binding
ligand sialyl
IT Oligosaccharides
(total synthesis of sialyl dimeric Lex)
IT 2438-80-4
(benzylation of, by benzyl bromide)
IT 123284-43-5
(glycosidation by, of sialyl dimeric Lex intermediate)
IT 138922-03-9P 139608-30-3P 139608-35-8P
(prepn. and acetylation of)
IT 127061-09-0P
(prepn. and allylation of)
IT 25875-99-4P
(prepn. and benzylation of)
IT 116096-63-0P
(prepn. and bromination by bromosuccinimide)
IT 139684-71-2P
(prepn. and bromination of)
IT 73960-72-2P 79528-49-7P 139608-23-4P
(prepn. and deacetylation of)
IT 139608-37-0P
(prepn. and deallylation of)
IT 74006-95-4P
(prepn. and dehydration of)
IT 126949-23-3P 139608-34-7P
(prepn. and deketalization of)
IT 139608-29-0P
(prepn. and demethylation of)
IT 139608-24-5P
(prepn. and denitrobenzylation of)
IT 139630-82-3P
(prepn. and deprotection of)
IT 60431-34-7P 139608-39-2P
(prepn. and fluorination by DAST)
IT 139608-26-7P 139608-36-9P
(prepn. and fluorination of)
IT 139608-28-9P
(prepn. and glycosidation by fluorotetrasaccharide)
IT 139608-38-1P
(prepn. and glycosidation by galactopyranosyl fluoride deriv.)
IT 139608-27-8P
(prepn. and glycosidation of)
IT 136514-59-5P
(prepn. and glycosidation of, by allyl deriv.)
IT 139608-22-3P
(prepn. and glycosidation of, sialyl dimeric Lex intermediate
from)
IT 139608-32-5P
(prepn. and hydrogenolysis of)
IT 139684-68-7P
(prepn. and hydrolysis of)
IT 79528-50-0P
(prepn. and ketalization by benzaldehyde)
IT 16758-34-2P

(prepn. and ketalization of)
IT 139608-31-4P
(prepn. and lactonization of)
IT 125288-69-9P
(prepn. and methylation of)
IT 10022-13-6P 139684-69-8P
(prepn. and reaction with thiophenol)
IT 139608-25-6P
(prepn. and removal of phenylthio group)
IT 139608-21-2P
(prepn. and selective deacetylation of)
IT 127061-08-9P
(prepn. of, as intermediate and sialyl dimeric Lex deriv.)
IT 139608-33-6P
(prepn. of, as intermediate for sialyl dimeric Lex)
IT 126949-14-2P
(prepn. of, as intermediate in sialyldimeric Lex deriv.)
IT 139684-70-1
(reaction with DBU)
IT 139608-19-8
(stereoselective synthesis of compds. related to)
IT 139608-20-1P
(total synthesis of)

=> fil reg

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conducting SmartSELECT searches.

=> s 133 or 138

L39 20 L33 OR L38

=> d ide can 1-20

L39 ANSWER 1 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 159226-32-1 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-.beta.-D-galactopyranosyl-

(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy-, mono(N-acetyl-.alpha.-neuraminoside) (9CI) (CA INDEX NAME)

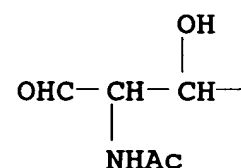
MF C144 H237 N9 O104
CI IDS
SR CA
LC STN Files: CA
DES *

CM 1

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CMF C133 H220 N8 O96
CDES *

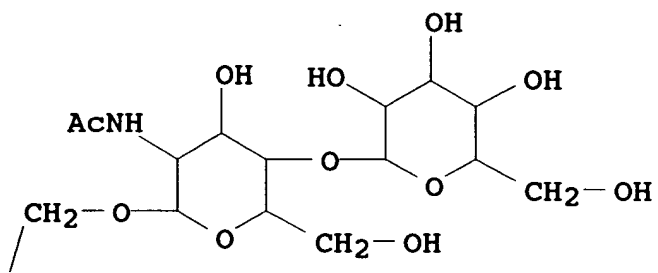
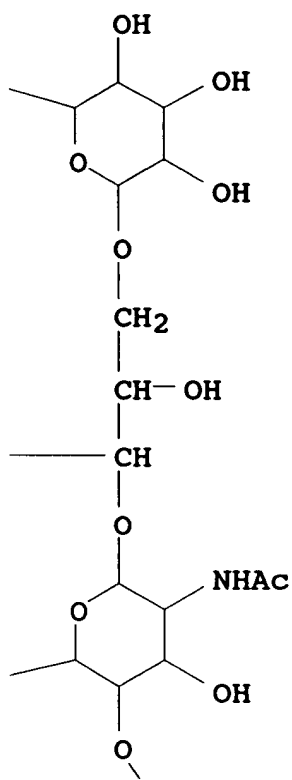
PAGE 1-A

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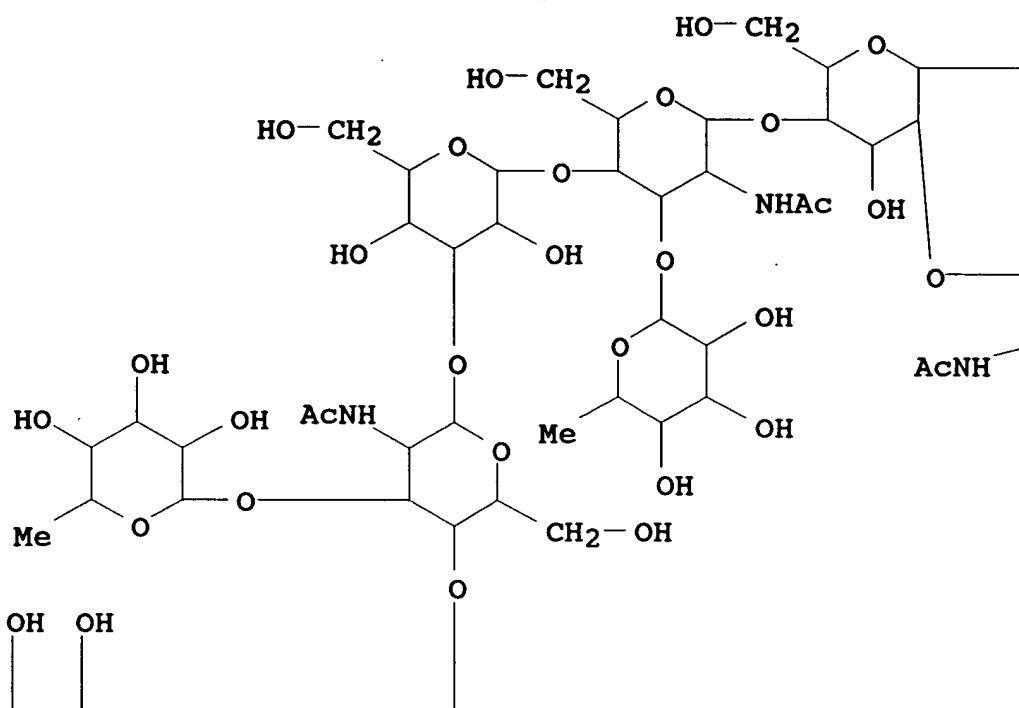


HO—CH₂—

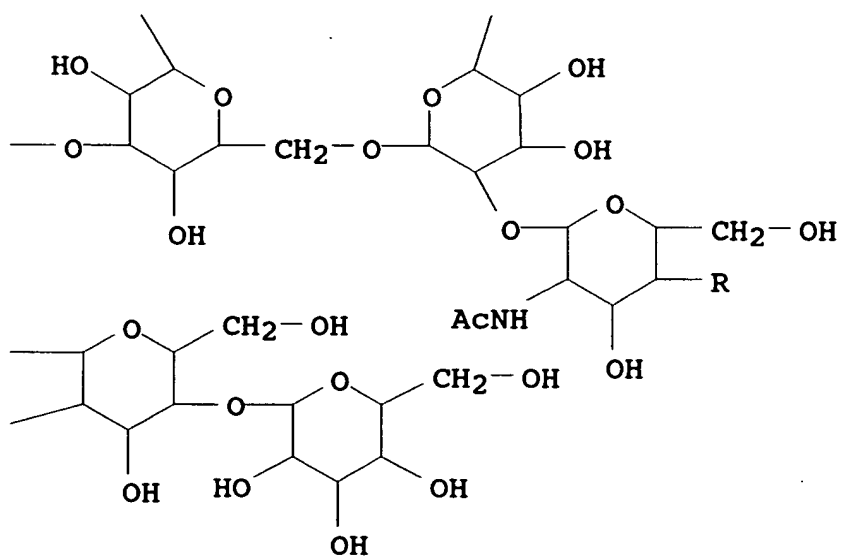
PAGE 1-B



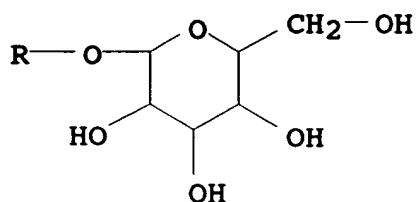
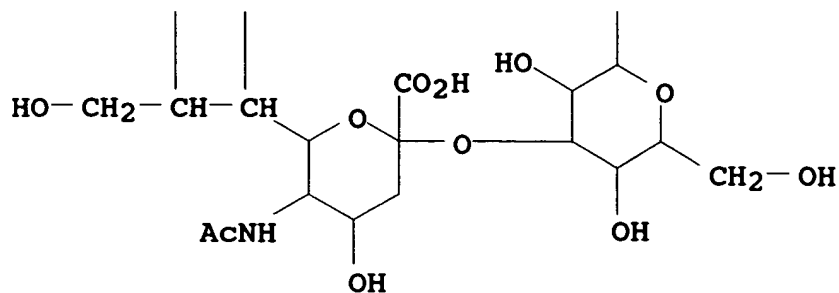
PAGE 2-A



PAGE 2-B



PAGE 3-A

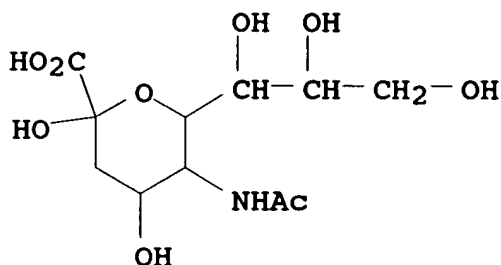


CM 2

CRN 21646-00-4

CMF C11 H19 N O9

CDES 5:D-GLYCERO-A-D-GALACTO



1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: 122:6189

L39 ANSWER 2 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 150509-56-1 REGISTRY

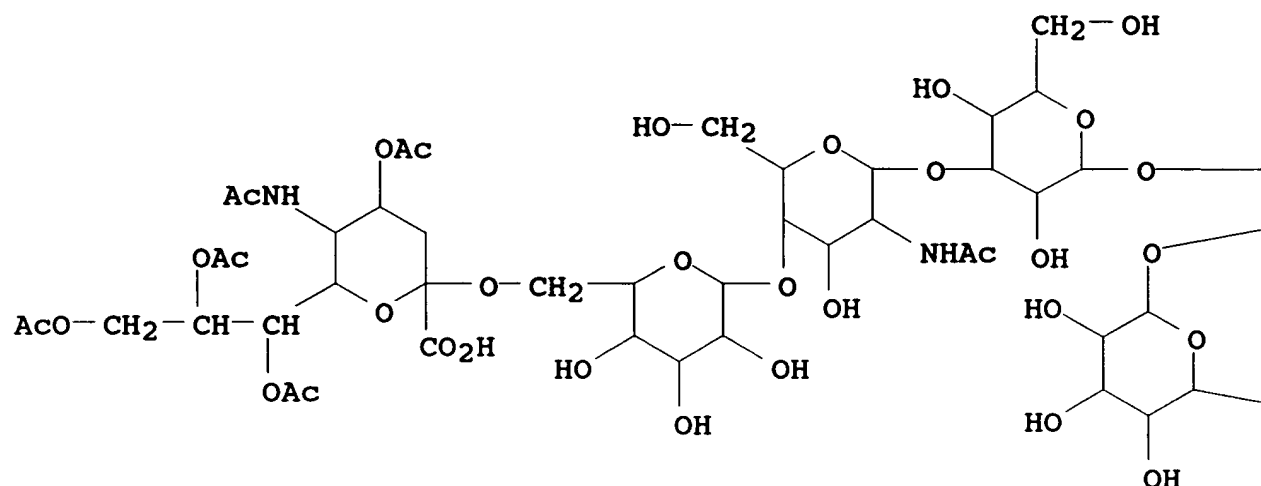
CN Nonanoic acid, 9-[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

MF C62 H99 N3 O39

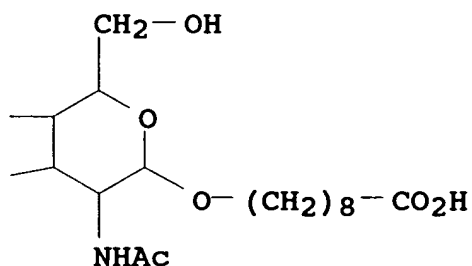
SR CA

LC STN Files: CA
DES *

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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:203708

L39 ANSWER 3 OF 20 REGISTRY COPYRIGHT 1995 ACS

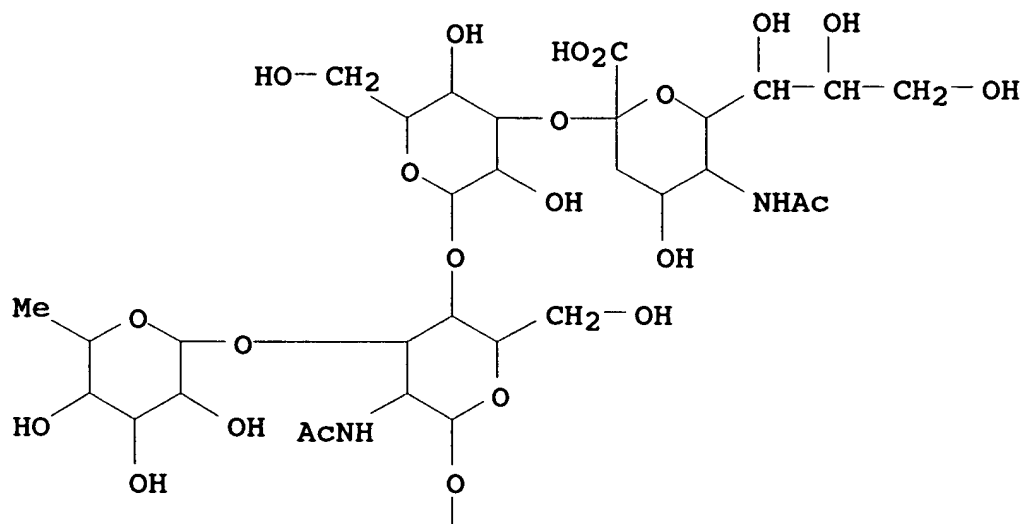
RN 149713-19-9 REGISTRY

CN .beta.-D-Galactopyranoside, ethyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-

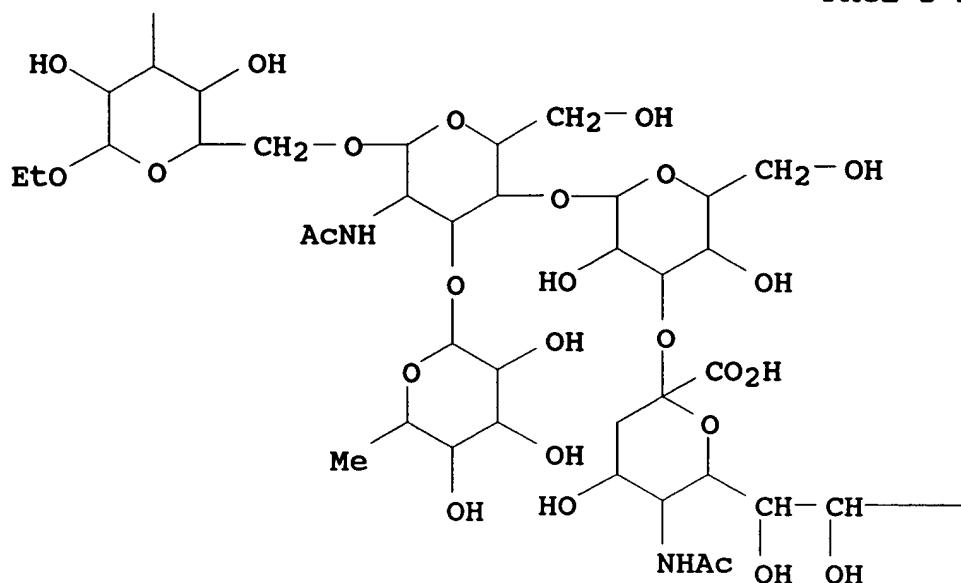
O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-
2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]- (9CI) (CA INDEX
NAME)

MF C70 H116 N4 O50
SR CA
LC STN Files: CA
DES *

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PAGE 2-B

— CH₂— OH

1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:181115

L39 ANSWER 4 OF 20 REGISTRY COPYRIGHT 1995 ACS

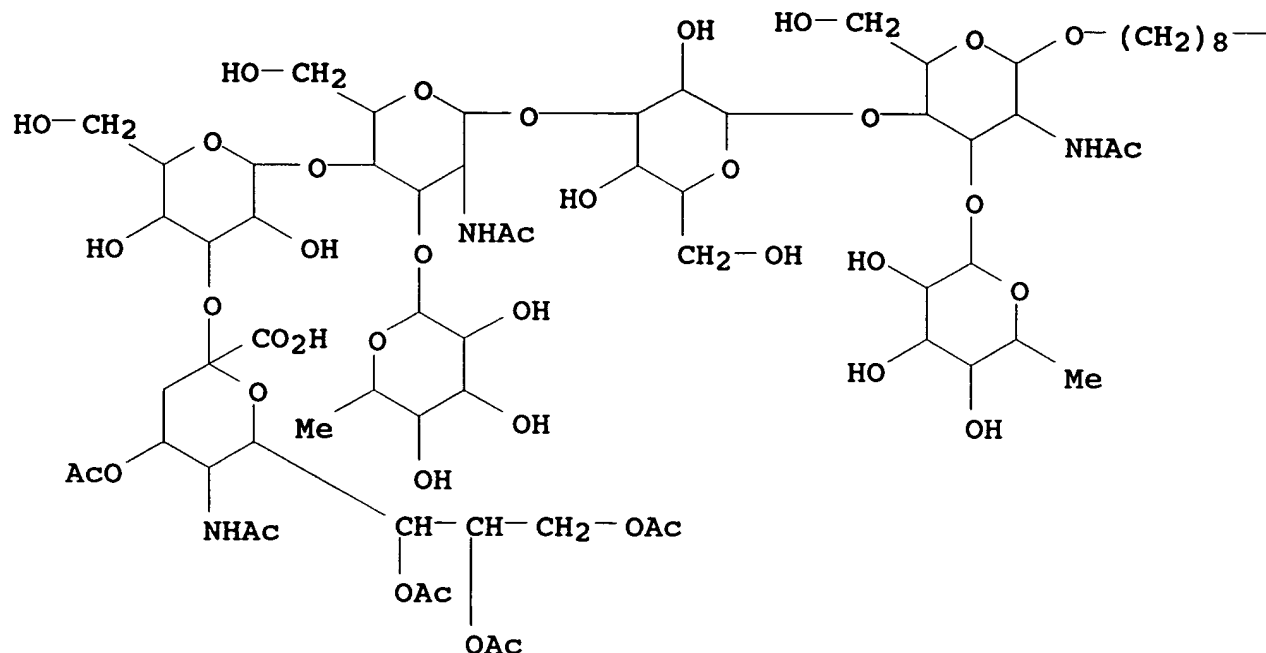
RN 149417-20-9 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-

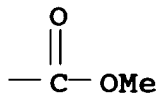
galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

MF C69 H111 N3 O43
 SR CA
 LC STN Files: CA
 DES *

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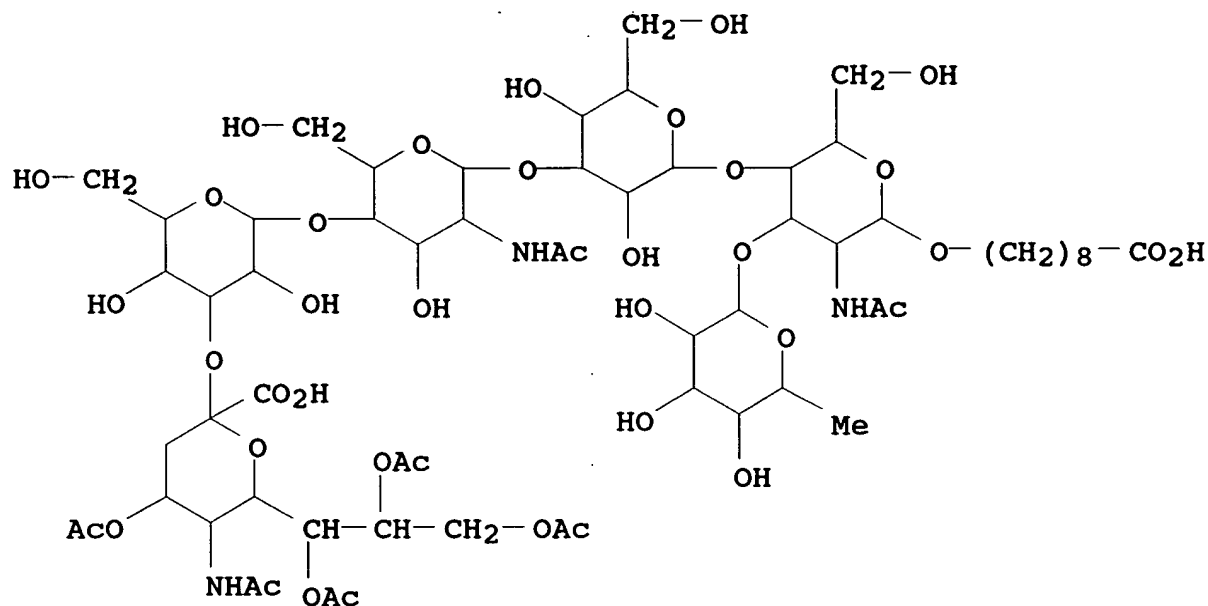
1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:203708

L39 ANSWER 5 OF 20 REGISTRY COPYRIGHT 1995 ACS
 RN 149417-18-5 REGISTRY
 CN Nonanoic acid, 9-[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-

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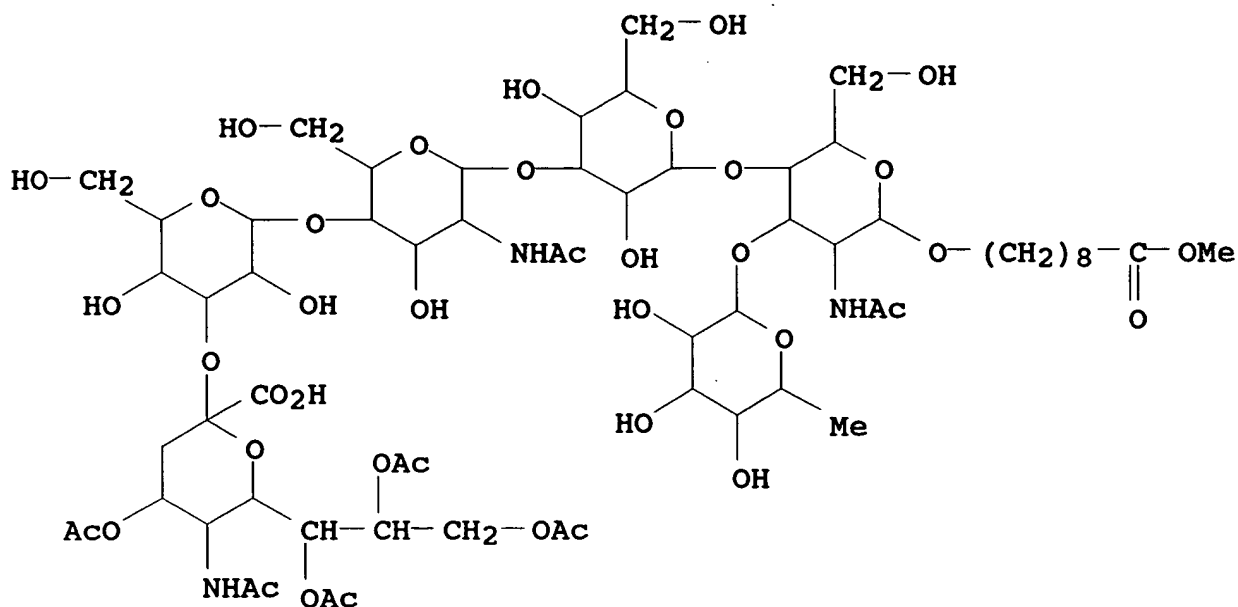
MF C62 H99 N3 O39
 SR CA
 LC STN Files: CA
 DES *



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:203708

L39 ANSWER 6 OF 20 REGISTRY COPYRIGHT 1995 ACS
 RN 149417-17-4 REGISTRY
 CN Nonanoic acid, 9-[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)
 MF C63 H101 N3 O39
 SR CA
 LC STN Files: CA
 DES *



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:203708

L39 ANSWER 7 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 149417-16-3 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

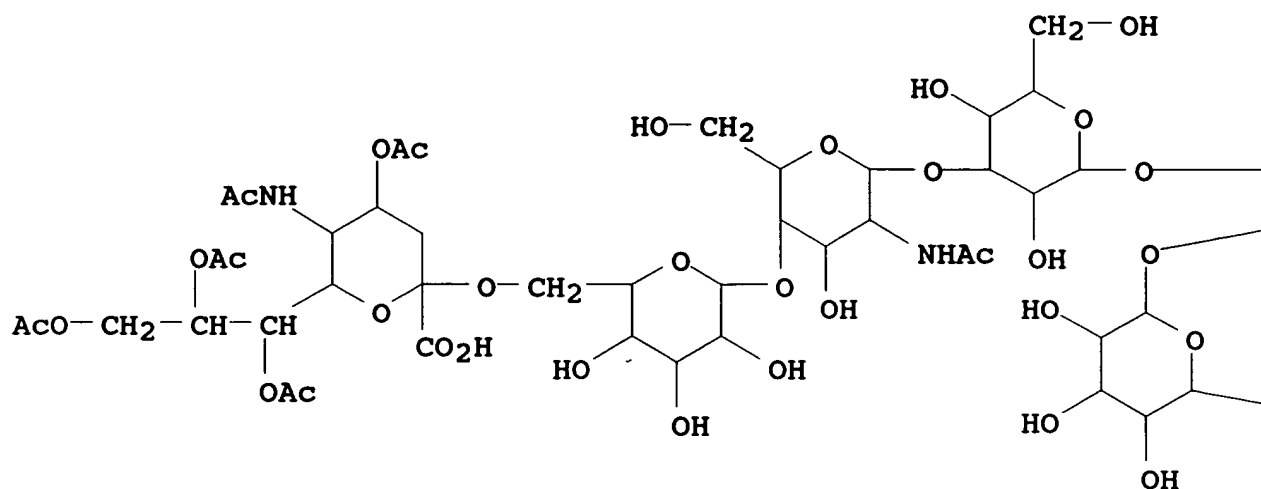
MF C63 H101 N3 O39

SR CA

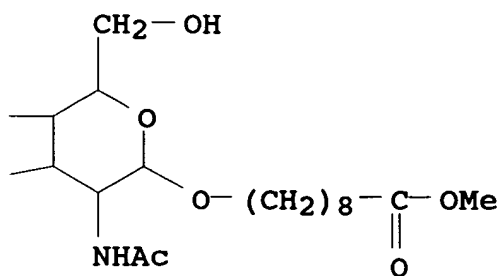
LC STN Files: CA

DES *

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PAGE 1-B



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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:203708

L39 ANSWER 8 OF 20 REGISTRY COPYRIGHT 1995 ACS

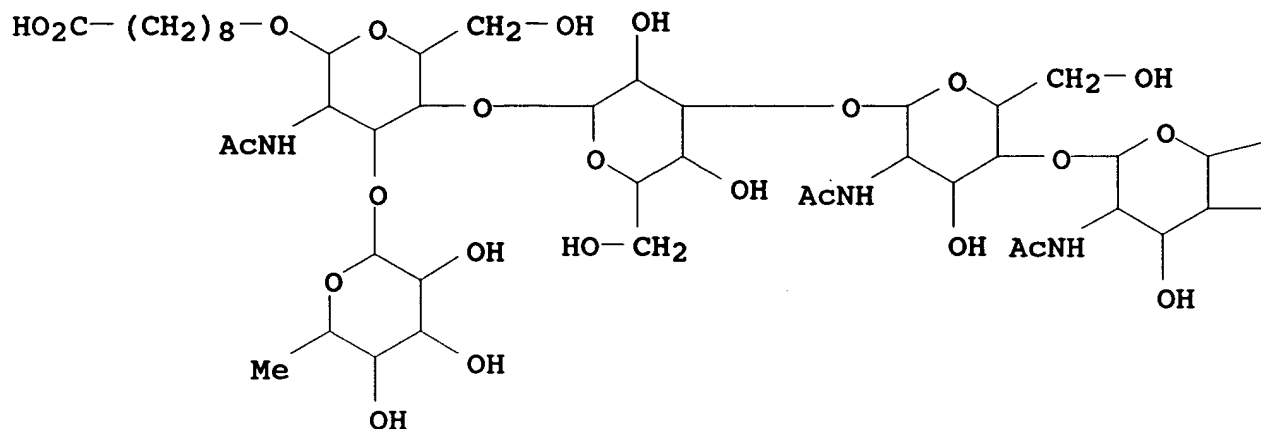
RN 148912-31-6 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

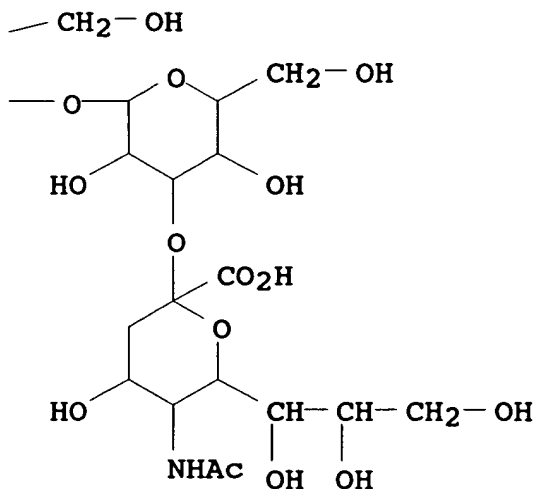
MF C62 H104 N4 O40

SR CA
 LC STN Files: CA, TOXLIT
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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:261339

L39 ANSWER 9 OF 20 REGISTRY COPYRIGHT 1995 ACS

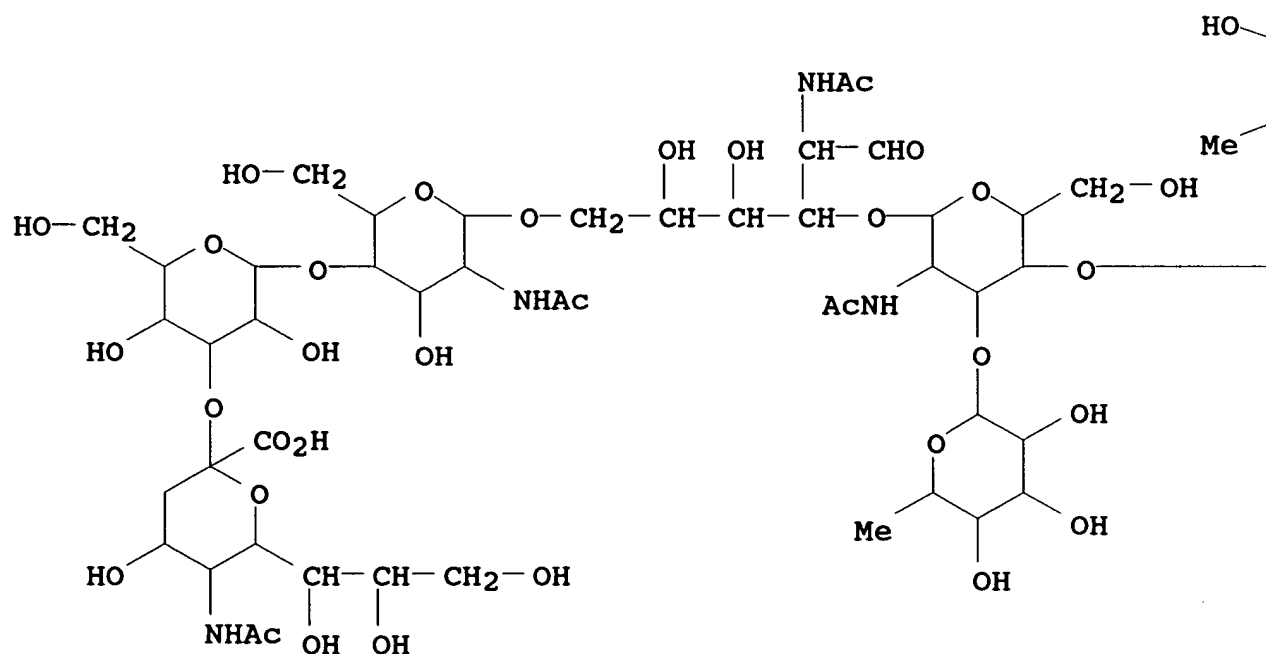
RN 147893-98-9 REGISTRY

CN D-Galactose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-

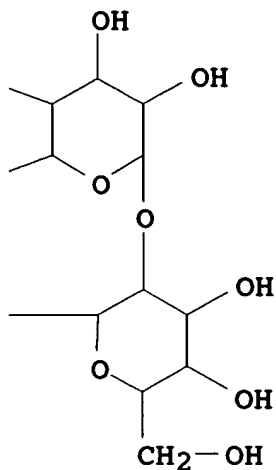
D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

MF C59 H98 N4 O42
SR CA
LC STN Files: CA
DES *

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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 119:3464

L39 ANSWER 10 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 146687-14-1 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

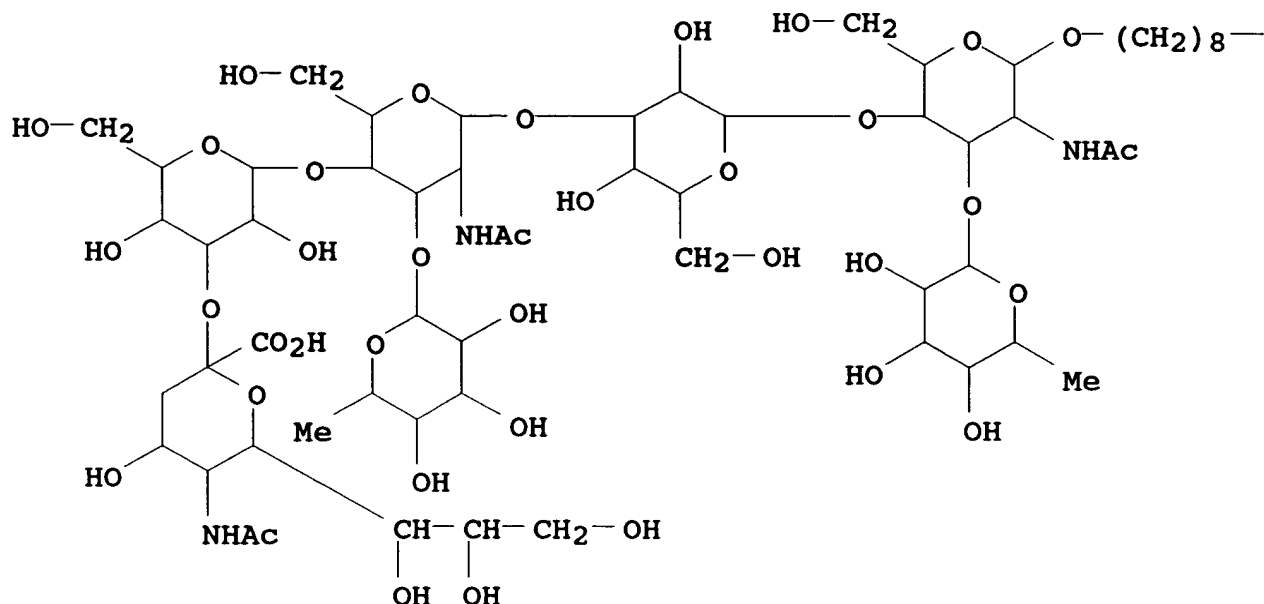
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SR CA

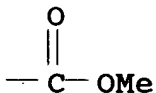
LC STN Files: CA, TOXLIT

DES *

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2 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:153713

REFERENCE 2: P 119:26822

L39 ANSWER 11 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 146663-88-9 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

DR 148912-33-8

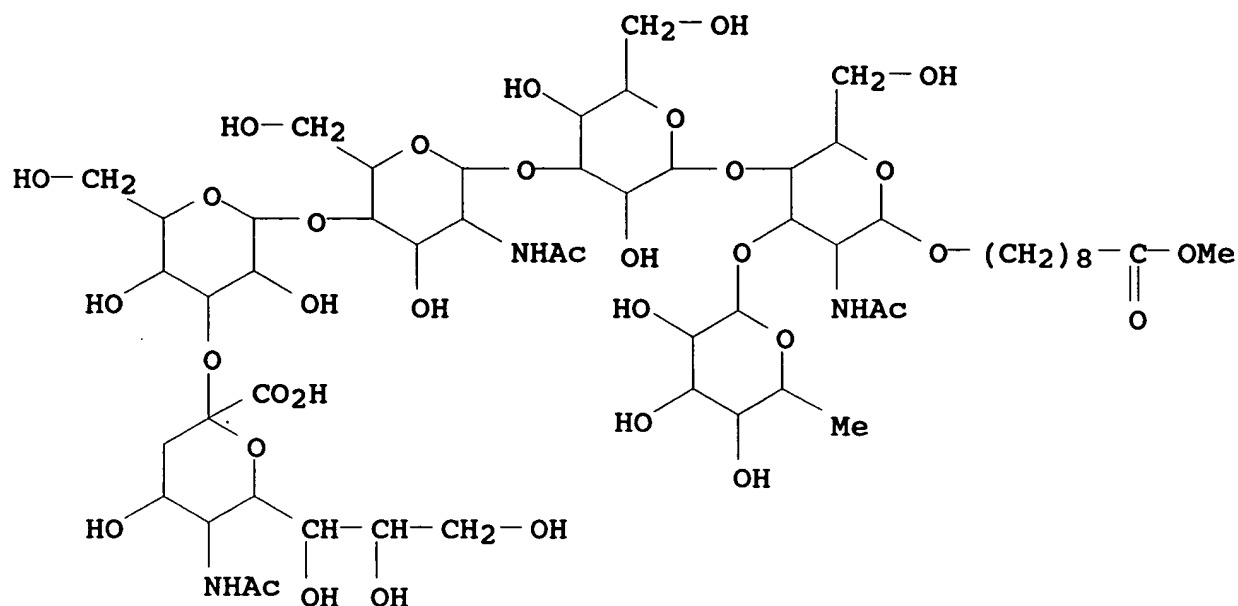
MF C55 H93 N3 O35

SR CA

LC STN Files: BEILSTEIN*, CA, CASREACT, TOXLIT

(*File contains numerically searchable property data)

DES *



3 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:261339

REFERENCE 2: P 120:153713

REFERENCE 3: P 119:26822

L39 ANSWER 12 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 146663-84-5 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

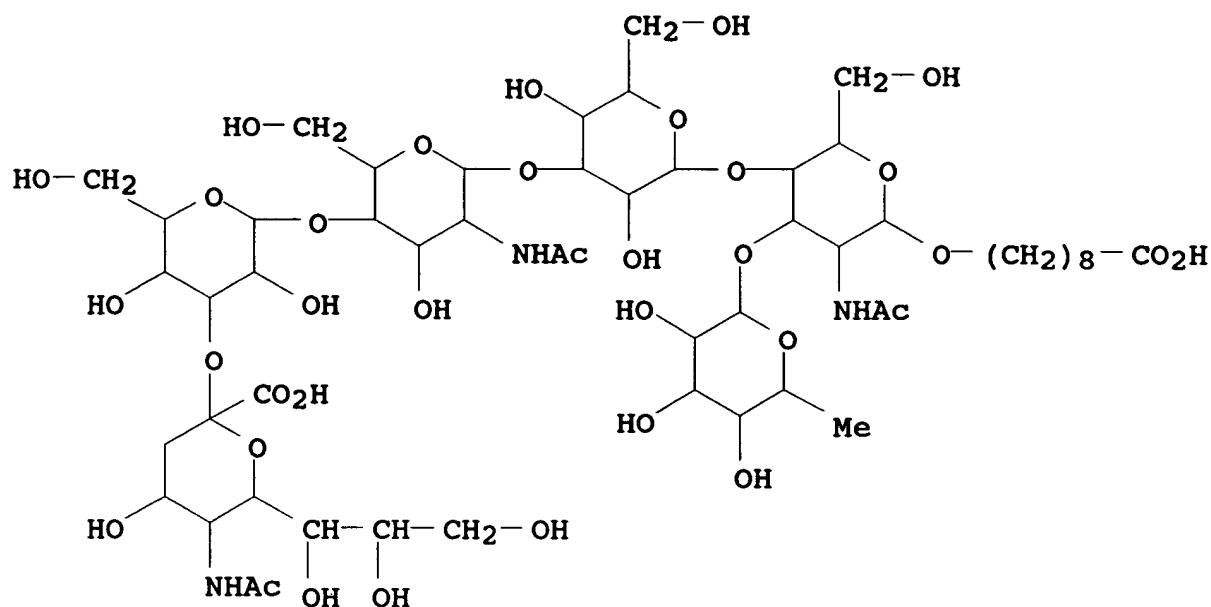
DR 148912-34-9

MF C54 H91 N3 O35

SR CA

LC STN Files: BEILSTEIN*, CA, CASREACT, TOXLIT
(*File contains numerically searchable property data)

DES *



3 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:261339

REFERENCE 2: P 120:153713

REFERENCE 3: P 119:26822

L39 ANSWER 13 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 146663-82-3 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

DR 148912-32-7

MF C54 H91 N3 O35

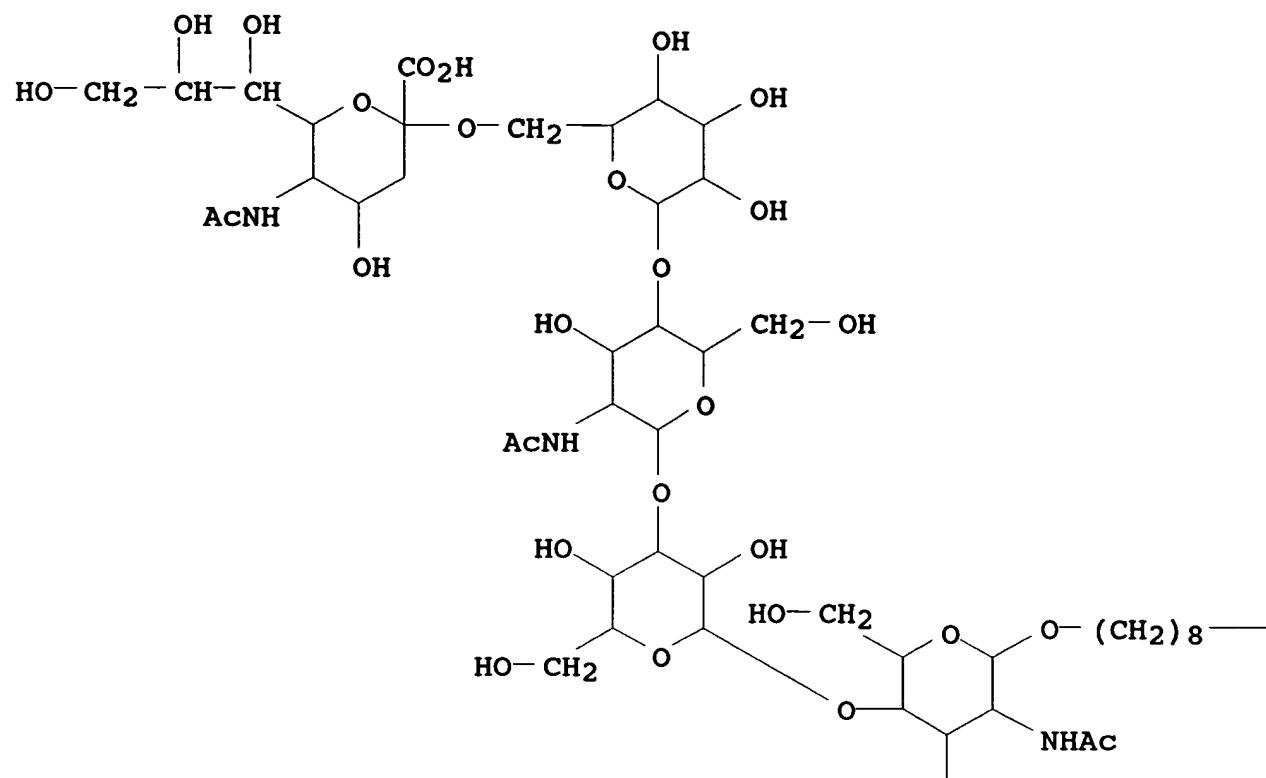
SR CA

LC STN Files: BEILSTEIN*, CA, TOXLIT

(*File contains numerically searchable property data)

DES *

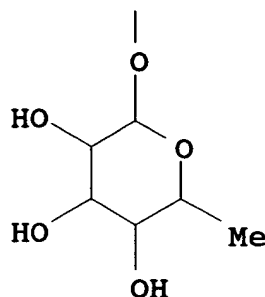
PAGE 1-A



PAGE 1-B

 $-\text{CO}_2\text{H}$

PAGE 2-A



3 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:261339

REFERENCE 2: P 120:153713

REFERENCE 3: P 119:26822

L39 ANSWER 14 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 146663-81-2 REGISTRY

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

DR 149076-38-0

MF C55 H93 N3 O35

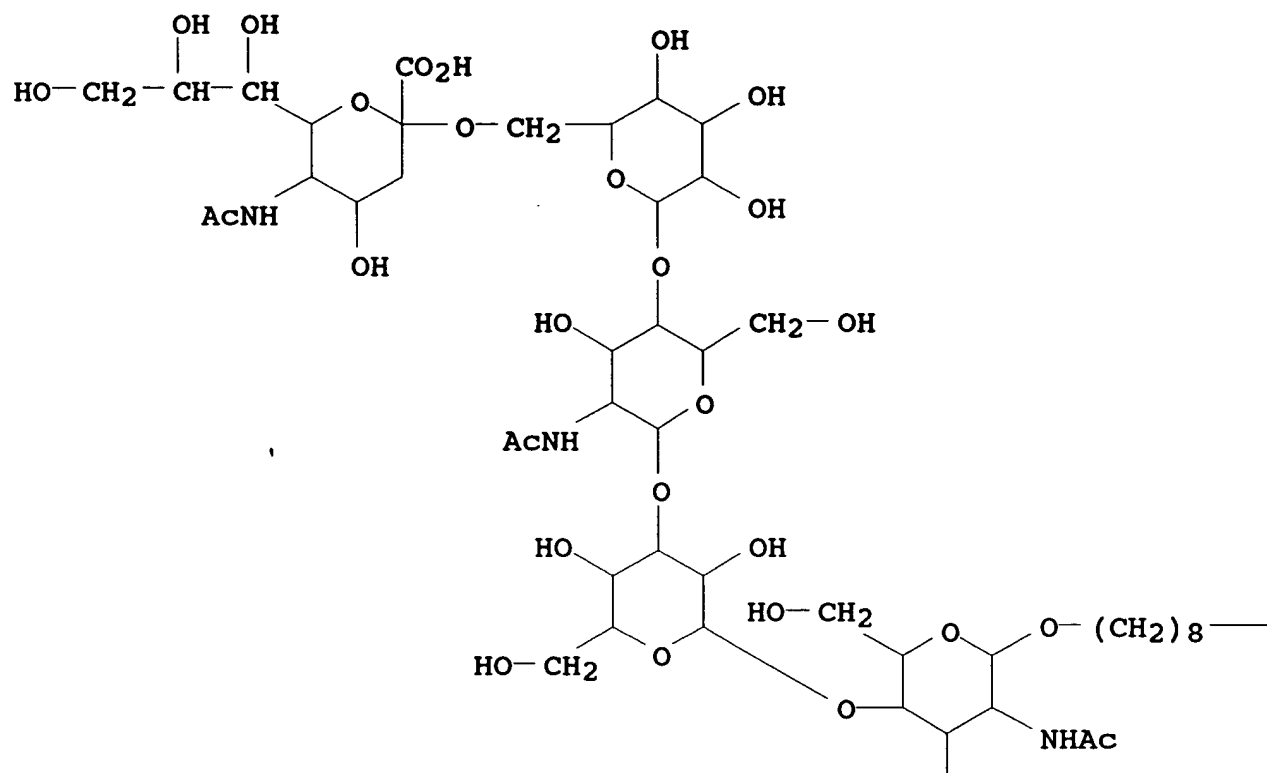
SR CA

LC STN Files: BEILSTEIN*, CA, TOXLIT

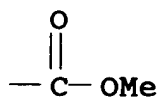
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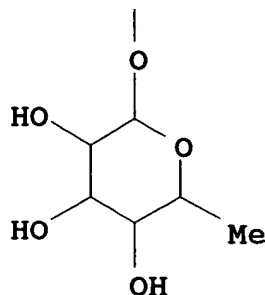
PAGE 1-A



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3 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 120:261339

REFERENCE 2: P 120:153713

REFERENCE 3: P 119:26822

L39 ANSWER 15 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 143033-17-4 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

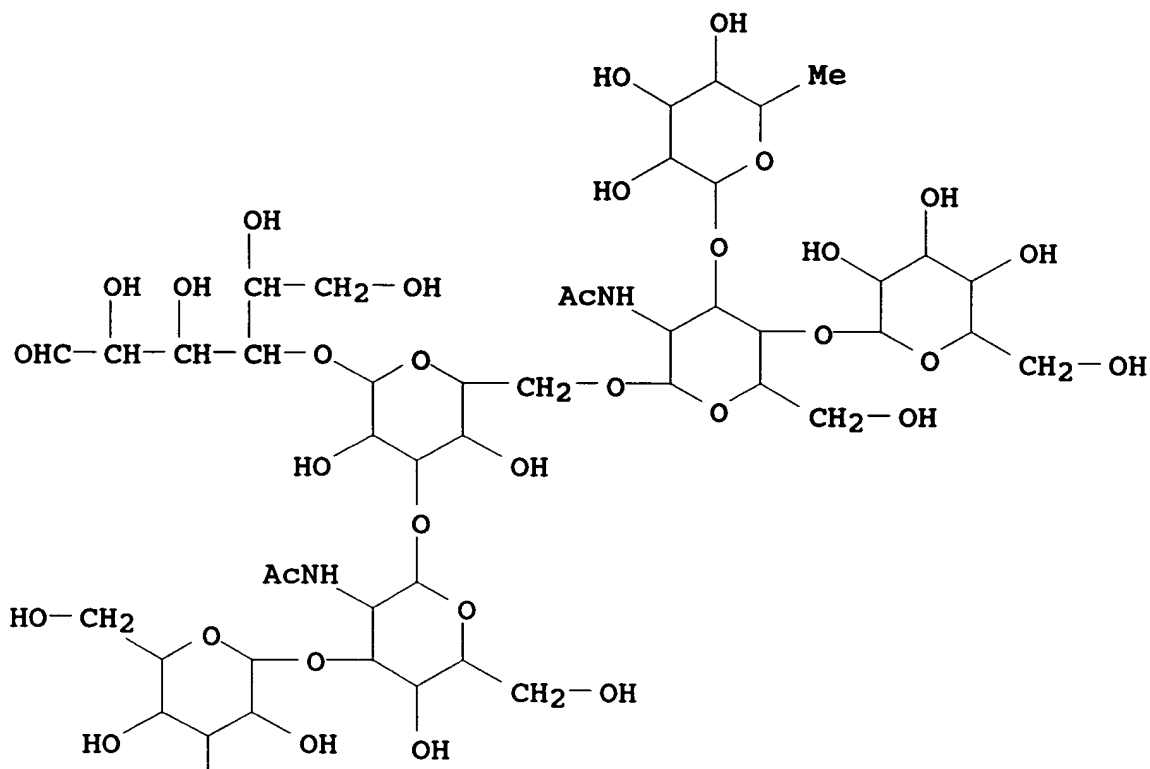
MF C57 H95 N3 O43

SR CA

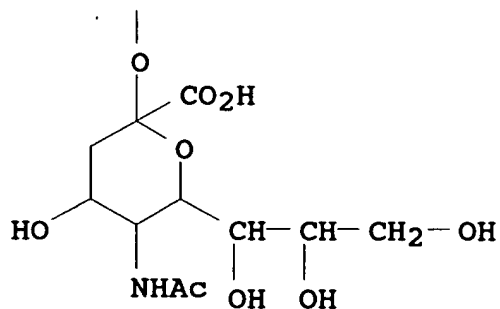
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DES *

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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 117:108641

L39 ANSWER 16 OF 20 REGISTRY COPYRIGHT 1995 ACS

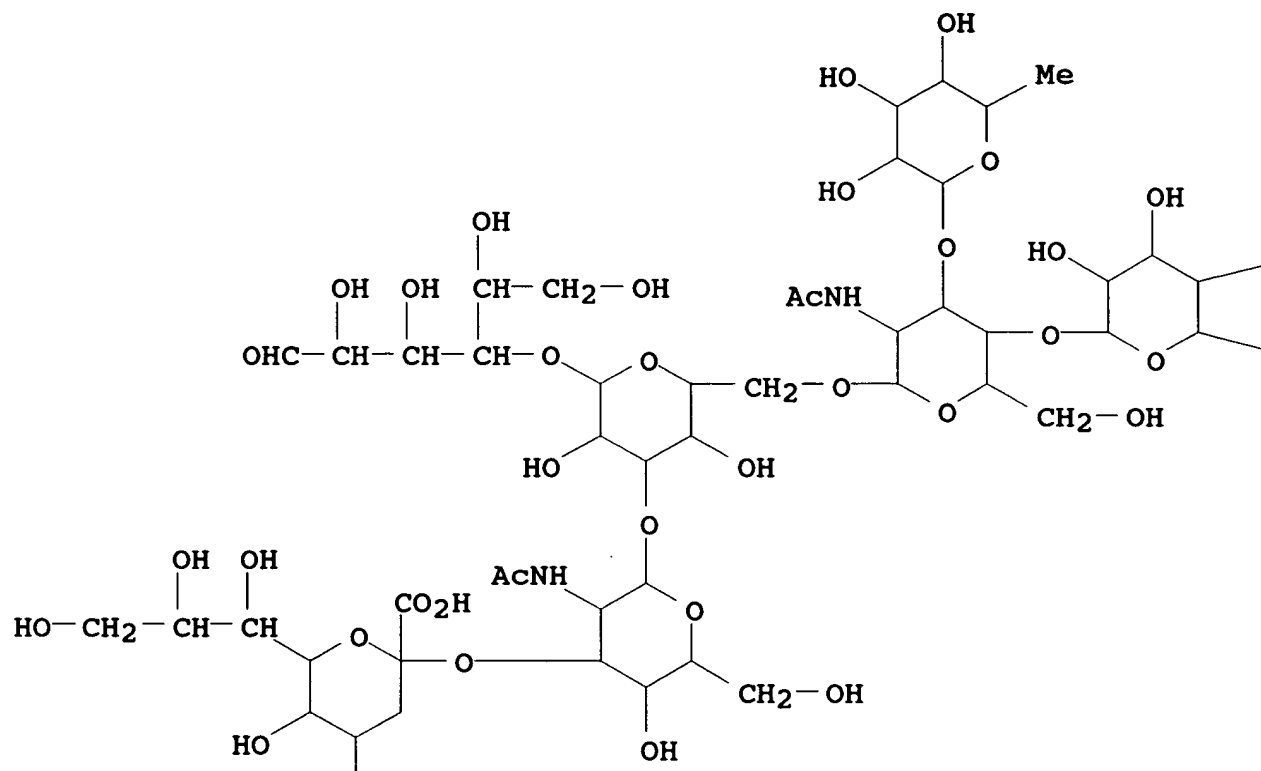
RN 143033-16-3 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-

(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
 (1.fwdarw.6)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA
 INDEX NAME)

MF C49 H82 N2 O38
 SR CA
 LC STN Files: CA
 DES *

PAGE 1-A



PAGE 1-B

— OH

— CH₂— OH

PAGE 2-A



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 117:108641

L39 ANSWER 17 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 143033-15-2 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

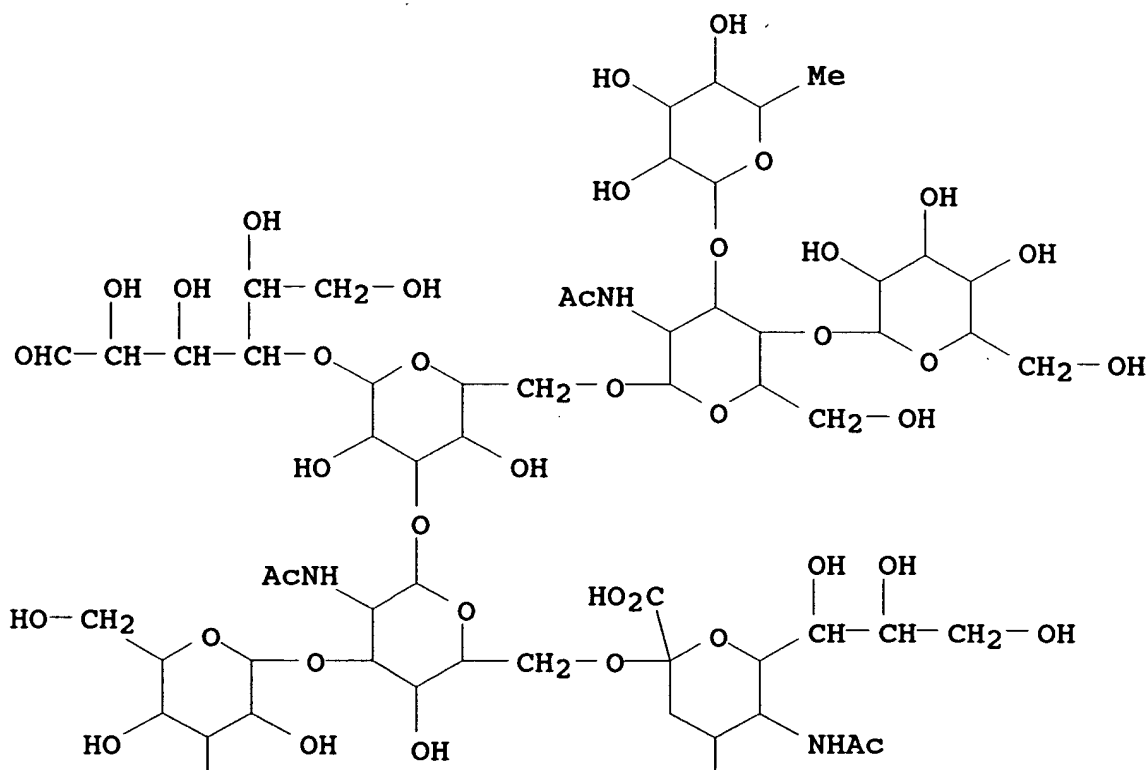
MF C57 H95 N3 O43

SR CA

LC STN Files: CA

DES *

PAGE 1-A



PAGE 2-A



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 117:108641

L39 ANSWER 18 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 139608-20-1 REGISTRY

CN Heptanoic acid, 7-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

MF C62 H105 N3 O39

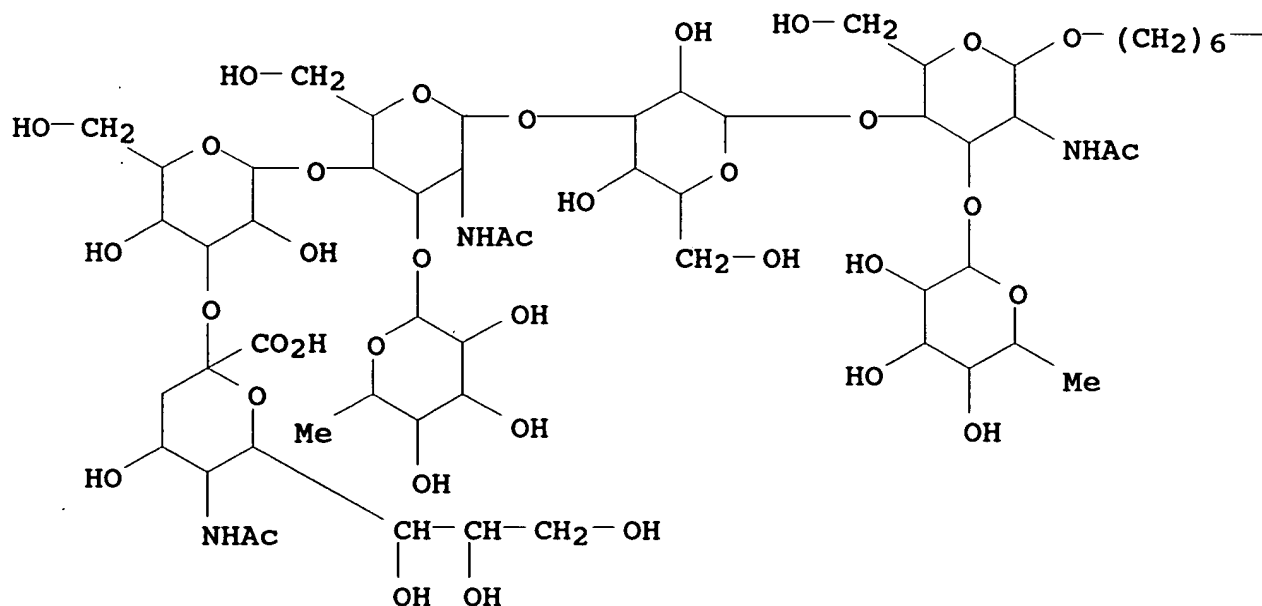
SR CA

LC STN Files: BEILSTEIN*, CA, CJACS

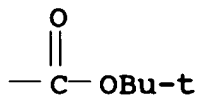
(*File contains numerically searchable property data)

DES *

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 116:214800

L39 ANSWER 19 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 139608-19-8 REGISTRY

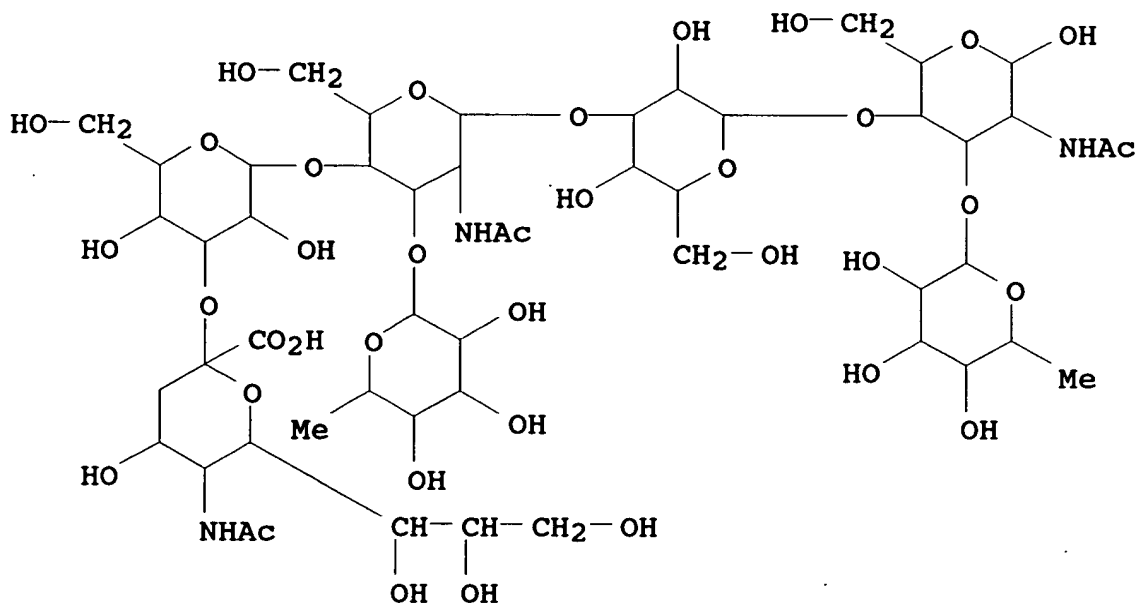
CN .beta.-D-Glucopyranose, O-(N-acetyl-.alpha.-neuraminosyl)-
 (2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-
 .alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-
 .beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-
 (1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-
 (acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

MF C51 H85 N3 O37

SR CA

LC STN Files: CA, CJACS

DES *



2 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: 122:7681

REFERENCE 2: P 120:75438

REFERENCE 3: 116:214800

L39 ANSWER 20 OF 20 REGISTRY COPYRIGHT 1995 ACS

RN 99447-47-9 REGISTRY

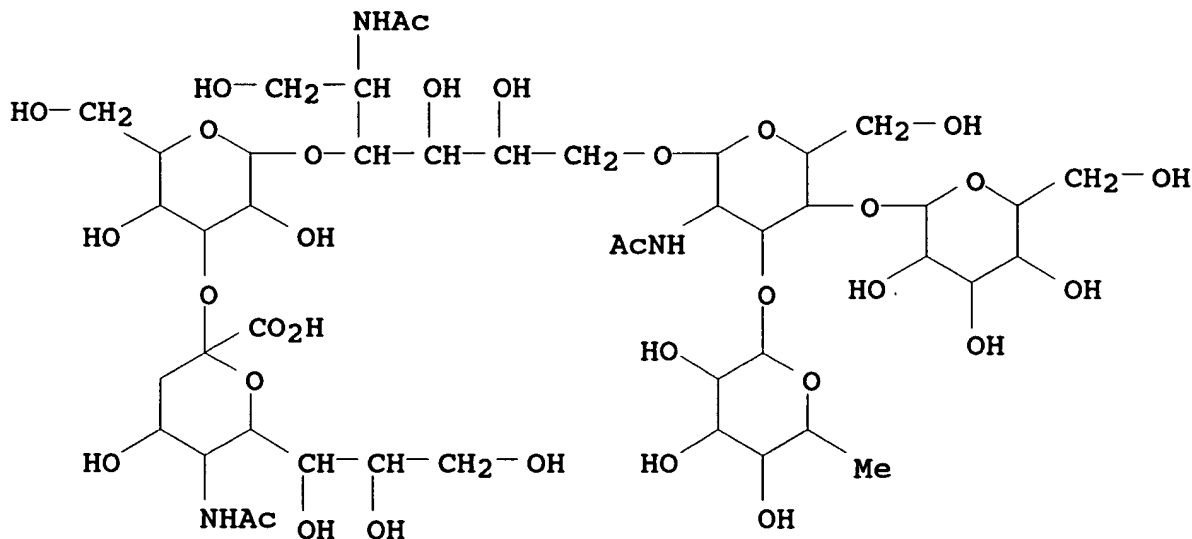
CN D-Galactitol, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

MF C45 H77 N3 O33

SR CA

LC STN Files: CA, CJACS, TOXLIT

DES *



4 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: 117:22138

REFERENCE 2: 107:234265

REFERENCE 3: 105:223497

REFERENCE 4: 104:4395

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L40 24 S L18 OR L32 OR L37

L41 9 S L6 AND P/DT

L42 4 S L41 NOT L40

SELECT HIT RN L42 1-4

patents only

"hit" emb

FILE 'REGISTRY' ENTERED AT 09:57:11 ON 09 FEB 95

L43 12 S E25-E36
L44 11 S L43 NOT L39

=> fil hca

FILE 'HCA' ENTERED AT 09:57:40 ON 09 FEB 95

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FILE COVERS 1967 - 4 Feb 1995 (950204/ED) VOL 122 ISS 6

HCAPLUS IS NOW ONLINE! SEE NEWS FOR DETAILS
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCA' FILE

=> d 142 1-4 bib abs hitrn

L42 ANSWER 1 OF 4 HCA COPYRIGHT 1995 ACS

AN 120:75438 HCA

TI Peptide-carbohydrate conjugates generating T-cell immunity

IN Jondal, Mikael

PA Aktiebolaget Astra, Swed.

SO PCT Int. Appl., 109 pp.

CODEN: PIXXD2

PI WO 9321948 A1 931111

DS W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP,
KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK,
UA, VN

RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,
IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 93-SE353 930423

PRAI SE 92-1338 920428

SE 92-2553 920907

SE 92-3897 921223

SE 93-1141 930406

DT Patent

LA English

AB The present invention relates to a novel class of biol. active compds., to processes for their prodn. and to their use in therapy. More particularly, the invention provides immunogenic conjugates useful for generating T cell immunity against tumor-assocd. carbohydrate structures or against carbohydrate structures expressed on infectious agents and/or infected host cells. The immunogenic conjugate comprises (i) a peptide component capable of binding an MHC class I mol.; and (ii) a carbohydrate component having the immunogenic specificity of the carbohydrate structure. The carbohydrate galabiose was coupled to the Cys in the 12-mer peptide SGVENPGGYCLT (an H2-Db restricted immunodominant CTL epitope in the lymphocytic choriomeningitis virus) (conjugate prepn. described). The glycoconjugate induced a galabiose-specific T cell response in mice.

IT 139608-19-8D, conjugates with MHC class I-binding peptide

152013-97-3D, conjugates with MHC class I-binding peptide

(for generating T cell immunity to cancers)

L42 ANSWER 2 OF 4 HCA COPYRIGHT 1995 ACS
AN 119:115327 HCA
TI Oligosaccharides with antigenic determinants from the jelly coat of
amphibian eggs
IN Strecker, Gerard; Michalski, Jean Claude; Montreuil, Jean;
Kordowicz, Maria
PA Merck Patent G.m.b.H., Germany
SO Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
PI EP 542145 A1 930519
DS R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
AI EP 92-119025 921106
PRAI DE 91-4137236 911111
DT **Patent**
LA German
AB Fucosylated oligosaccharides obtained from jelly coat mucins of
amphibians, esp. salamanders (Pleurodeles, axolotl), contain
antigenic determinants useful for elicitation of anti-Lex, anti-Ley,
or anti-3-deoxy-D-glycero-D-galactononulosonic acid antibodies, for
immunoassays, and for prepn. of an antitumor vaccine. Thus,
lyophilized jelly coat from *P. waltlii* was treated with 50 mM NaOH
and 1.0M NaBH₄ and the resultant oligosaccharide alditols were sepd.
by HPLC on Supelcosil LC-NH₂ to provide
Gal.beta.1.fwdarw.4(Fuc.alpha.1.fwdarw.3)GlcNAc.beta.1.fwdarw.3GalNA
c.alpha.1.fwdarw.3[(KDN)n.alpha.2.fwdarw.6]X (I; X = GalNAc,
GalNAc-ol; n = 0, 1) and 3 related oligosaccharides. I was reacted
with (1) 8-methoxycarbonyloctanol, (2) H₂NNH₂, (3) 3.6M HCl, (4)
tert-Bu nitrite, (5) sulfamic acid, and (6) serum albumin to provide
a neoglycoprotein which activated human leukocytes.
IT 139721-32-7 139721-33-8 139721-34-9
149230-44-4 149230-45-5 149230-48-8
149230-49-9 149230-52-4
(as antigenic determinant, of mucin of egg jelly coat of
amphibian)

L42 ANSWER 3 OF 4 HCA COPYRIGHT 1995 ACS
AN 113:120766 HCA
TI Human interferon-gamma, process for preparing said human
interferon-gamma, and its use
IN Kurimoto, Masashi; Mitsushashi, Masakazu
PA Hayashibara Biochemical Laboratories, Inc., Japan
SO Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
PI EP 353910 A2 900207
DS R: AT, CH, DE, ES, FR, GB, IT, LI, SE
AI EP 89-307374 890720
PRAI JP 88-184069 880723
DT **Patent**
LA English
AB A process is described for large-scale prodn. of human
interferon-gamma (HuINF-gamma). Thus, a buffy coat, prepd. from
human peripheral blood, was suspended in Eagle's min. essential
medium supplemented with 10% of fetal calf serum to give a cell d.
of 2.5 .times. 10⁶ cells/mL. To the cell suspension was added about

10 .mu.g/mL phytohemagglutinin, and incubated at 37.degree. for 3 days to induce HuIFN-gamma prodn. The resultant culture medium was centrifugally sepd. to obtain a supernatant having about 1000 units/mL supernatant of HuIFN-gamma. The supernatant was purified by membrane filtration, column chromatog., and gel filtration to obtain an HuIFN-gamma soln. in the yield of an about 75% with respect to HuIFN-gamma activity. The product was a high-purity HuIFN-gamma having a specific activity of about 2 .times. 10⁷ units/mg protein. Studies on mol. wt., amino acid sequence and carbohydrate chain structure of the high-purity HuIFN-gamma showed that the HuIFN-gamma was a novel HuIFN-gamma. The product can be advantageously used as an effective component in prophylactic or therapeutic agents for diseases, as well as a material for prep. HuIFN-gamma derivs.

IT 121294-99-3

(carbohydrate chain, of .gamma.-interferon of human)

L42 ANSWER 4 OF 4 HCA COPYRIGHT 1995 ACS

AN 111:5754 HCA

TI Antiidiotype antibodies to antibodies to cancer-specific carbohydrates, process for preparing them, and method of determining antibody for cancer diagnosis

IN Shin, Sadahito; Tachikawa, Tetsuya; Nakajima, Katsuyuki

PA Otsuka Pharmaceutical Co., Ltd., Japan

SO Eur. Pat. Appl., 51 pp.

CODEN: EPXXDW

PI EP 264911 A2 880427

DS R: CH, DE, ES, FR, GB, IT, LI, NL, SE

AI EP 87-115347 871020

PRAI JP 86-250170 861020

JP 87-71144 870324

JP 87-130649 870526

JP 87-198906 870807

DT Patent

LA English

AB An antiidiotype antibody (Ab) to a specific Ab recognizing a carbohydrate linkage selected from NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.4GlyNAc(3.fwdarw..alpha.1Fuc).beta.1.fwdarw.3Gal.beta.1.fwdarw.4GlcNAc(3.rarw..alpha.1Fuc).beta.1.fwdarw.3Gal.beta.1.fwdarw.4Glc(I), Gal.beta.1.fwdarw.4GlcNAc(3.rarw..alpha.1Fuc).beta.1.fwdarw.3Gal.beta.1.fwdarw. (II), Fuc.alpha.1.fwdarw.2Gal.beta.1.fwdarw.4GlcNAc(3.fwdarw..alpha.1Fuc).beta.1.fwdarw.3Gal.beta.1.fwdarw. (III), NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.3GlyNAc(4.fwdarw..alpha.1Fuc).beta.1.fwdarw.3Gal.beta.1.fwdarw. (IV), NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.3GlcNAc(4.fwdarw..alpha.1Fuc)(6.rarw..alpha.2NeuAc).beta.1.fwdarw.3Gal.beta.1.fwdarw. (V), and NeuAc.alpha.2.fwdarw.3Gal.beta.1.fwdarw.3GlcNAc(6.rarw.2NeuAc).beta.1.fwdarw.3Gal.beta.1.fwdarw. (VI); a process for prep. them; and a method for detg. a cancer antigen using them, are described. Monoclonal antiidiotype Ab to FH-6 (Ab to I) was prep. by std. hybridoma methods. The resulting monoclonal Ab was immobilized on beads and used in a RIA to detect FH-6 in sera of lung cancer patients. The sera of lung cancer patients showed significantly higher counts than sera for normal persons (.apprx.720 vs.

.apprx.550 cpm).

IT 120885-83-8

(cancer antigen, monoclonal antibodies to antibodies specific for)

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:58:01 ON 09 FEB 95

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STRUCTURE FILE UPDATES: 3 FEB 95 HIGHEST RN 160636-16-8

DICTIONARY FILE UPDATES: 8 FEB 95 HIGHEST RN 160636-16-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 1994

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

=> d l44 1-11 ide can

*a hitⁿ comes from
patents*

L44 ANSWER 1 OF 11 REGISTRY COPYRIGHT 1995 ACS

RN 152013-97-3 REGISTRY

CN .beta.-D-Glucopyranose, O-(N-acetyl-.alpha.-neuraminosyl)-
(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-
.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-
.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-
(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-
(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-
D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-
galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy- (9CI) (CA
INDEX NAME)

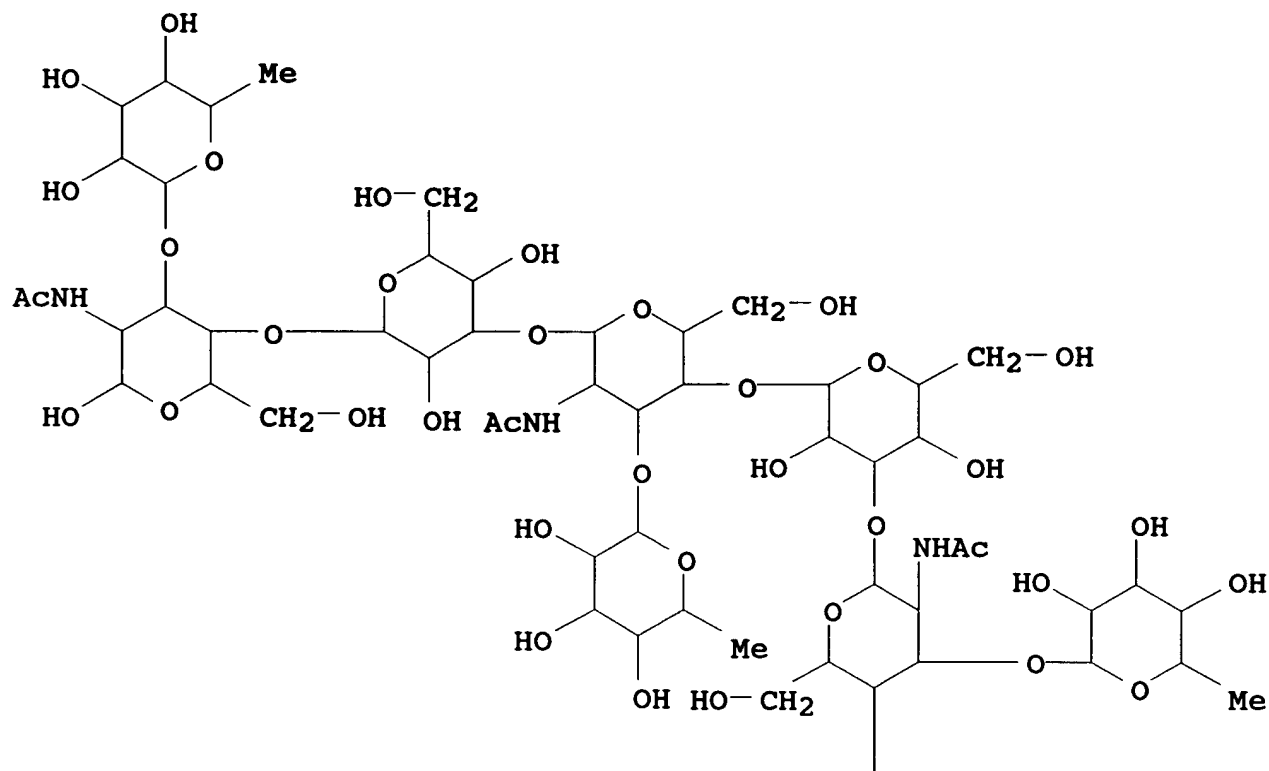
MF C71 H118 N4 O51

SR CA

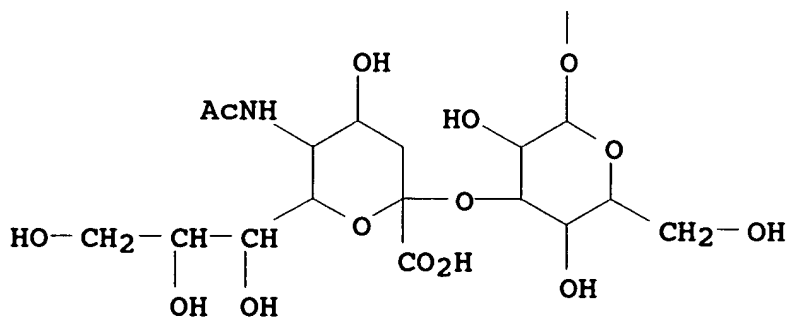
LC STN Files: CA

DES *

PAGE 1-A



PAGE 2-A



1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: P 120:75438

L44 ANSWER 2 OF 11 REGISTRY COPYRIGHT 1995 ACS

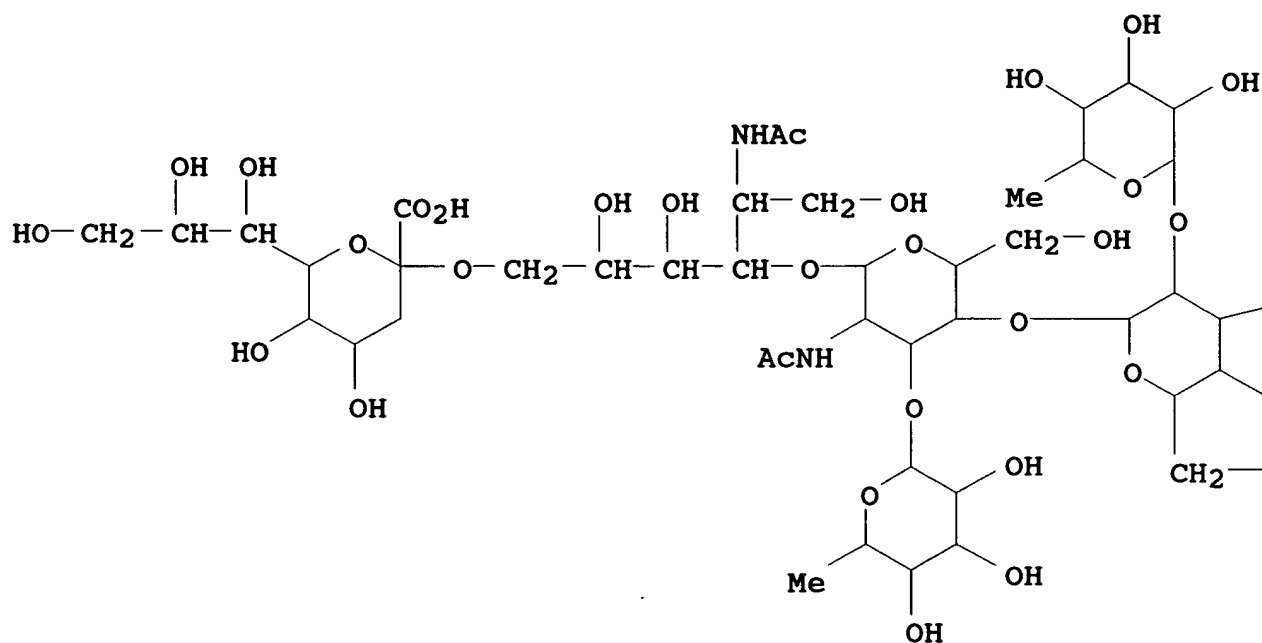
RN 149230-52-4 REGISTRY

CN D-Galactitol, O-2-(acetylamino)-2-deoxy-.alpha.-D-galactopyranosyl-(1.fwdarw.3)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-

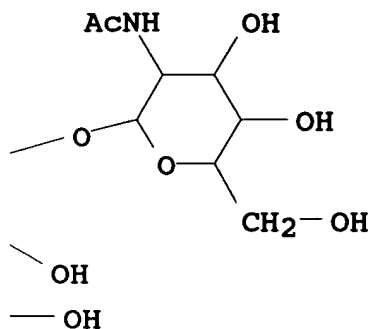
galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-galacto-2-nonulopyranosonosyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

MF C51 H87 N3 O37
SR CA
LC STN Files: CA
DES *

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 119:115327

L44 ANSWER 3 OF 11 REGISTRY COPYRIGHT 1995 ACS

RN 149230-49-9 REGISTRY

CN D-Galactitol, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-
[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-
.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-
.alpha.-D-galactopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-
D-galacto-2-nonulopyranosononyl-(2.fwdarw.6)]-2-(acetylamino)-2-
deoxy- (9CI) (CA INDEX NAME)

MF C45 H77 N3 O33

SR CA

LC STN Files: CA

DES *

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REFERENCE 1: P 119:115327

RN 149230-45-5 REGISTRY

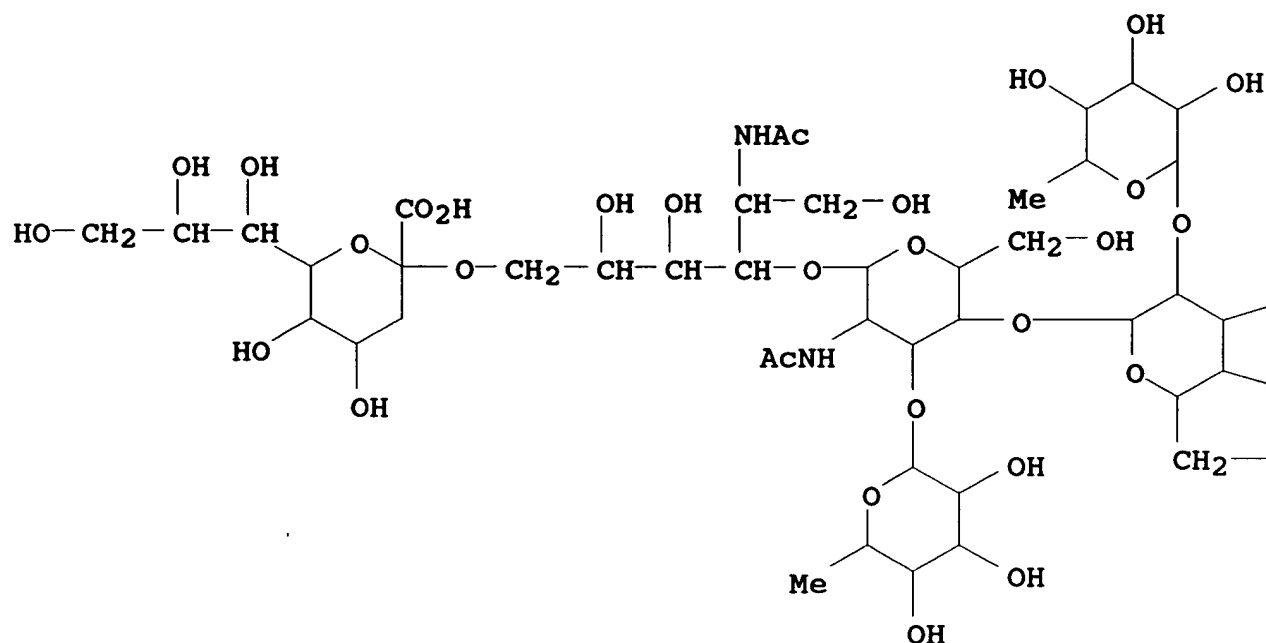
CN D-Galactitol, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-galacto-2-nonulopyranosononyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

SR CA

LC STN Files: CA

DES *

PAGE 1-A



PAGE 1-B

— OH

— OH

— OH

1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 119:115327

L44 ANSWER 6 OF 11 REGISTRY COPYRIGHT 1995 ACS

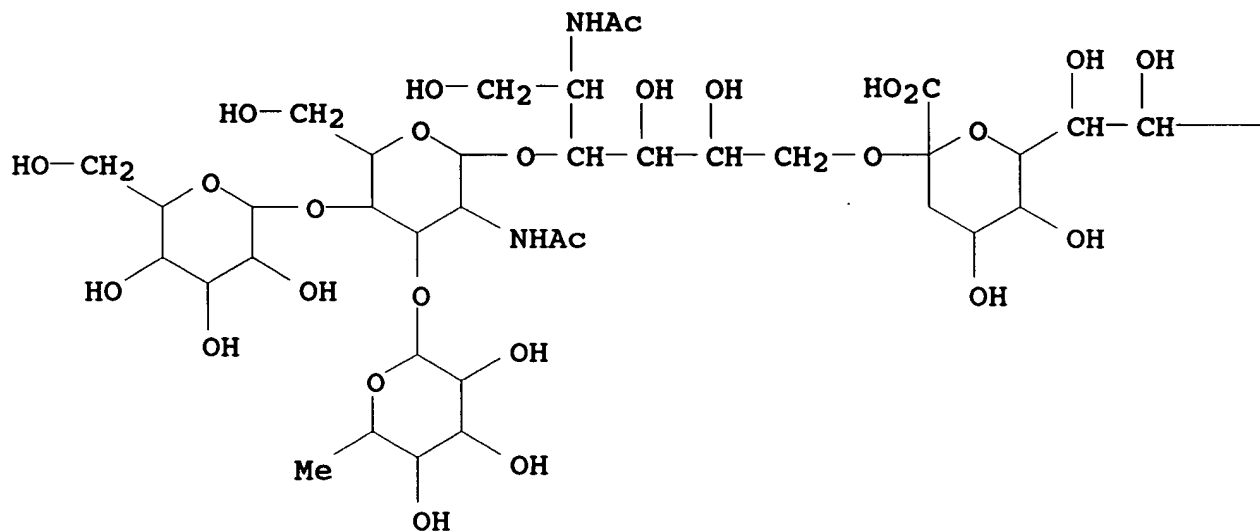
RN 149230-44-4 REGISTRY

CN D-Galactitol, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-
[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-

.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-galacto-2-nonulopyranosonosyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy-(9CI) (CA INDEX NAME)

MF C37 H64 N2 O28
 SR CA
 LC STN Files: CA
 DES *

PAGE 1-A



PAGE 1-B

— CH₂— OH

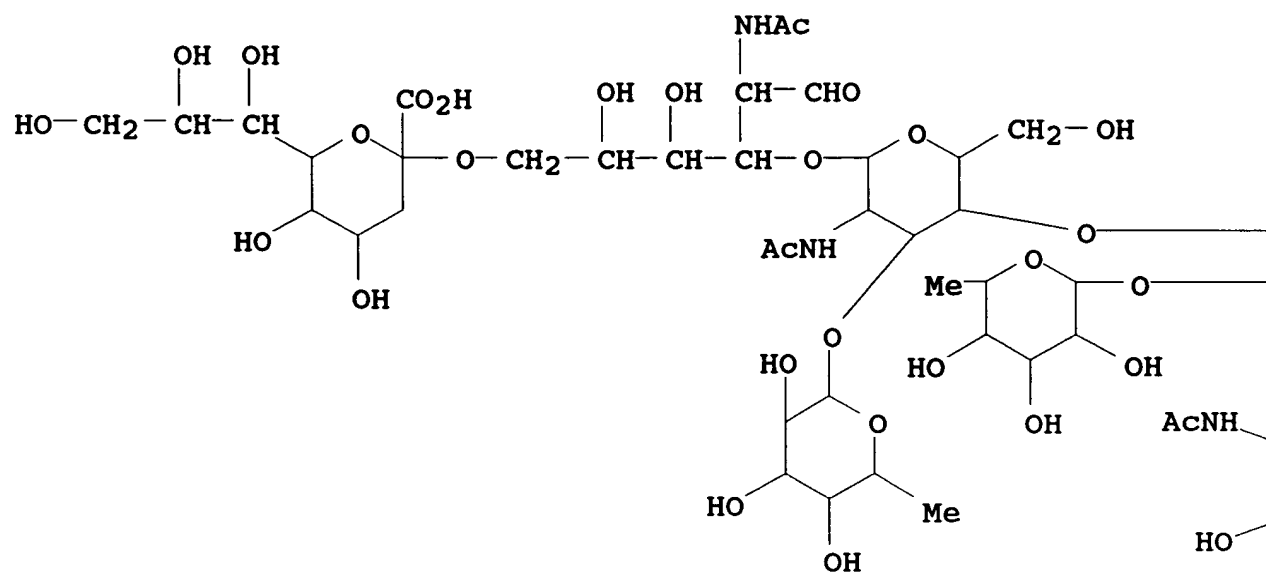
1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 119:115327

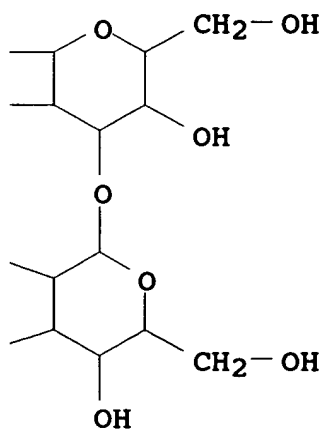
L44 ANSWER 7 OF 11 REGISTRY COPYRIGHT 1995 ACS
 RN 139721-34-9 REGISTRY
 CN D-Galactose, O-2-(acetylamino)-2-deoxy-.alpha.-D-galactopyranosyl-(1.fwdarw.3)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-galacto-2-nonulopyranosonosyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)
 MF C51 H85 N3 O37
 SR CA
 LC STN Files: CA

DES *

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1967 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: P 119:115327

REFERENCE 2: 116:149664

L44 ANSWER 8 OF 11 REGISTRY COPYRIGHT 1995 ACS

RN 139721-33-8 REGISTRY

CN D-Galactose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-galacto-2-nonulopyranosononyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

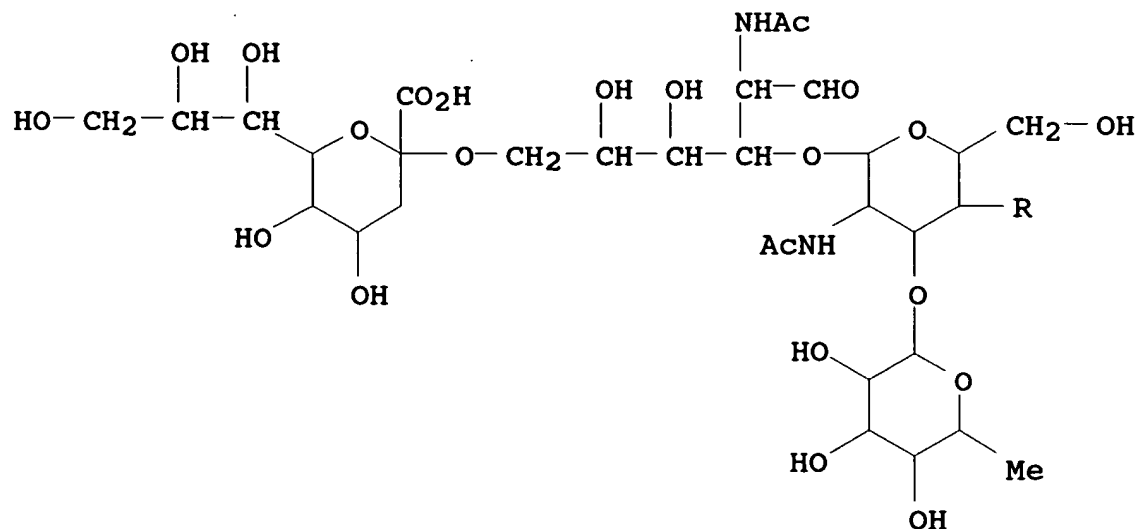
MF C43 H72 N2 O32

SR CA

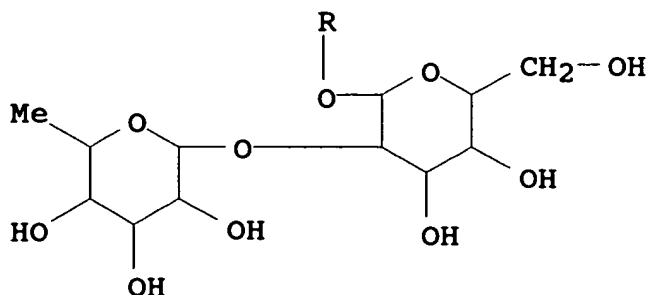
LC STN Files: CA

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PAGE 1-A



PAGE 2-A



1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: P 119:115327

REFERENCE 2: 116:149664

L44 ANSWER 9 OF 11 REGISTRY COPYRIGHT 1995 ACS

RN 139721-32-7 REGISTRY

CN D-Galactose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-
 [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-
 .beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[3-deoxy-D-glycero-.alpha.-D-
 galacto-2-nonulopyranosonyl-(2.fwdarw.6)]-2-(acetylamino)-2-deoxy-
 (9CI) (CA INDEX NAME)

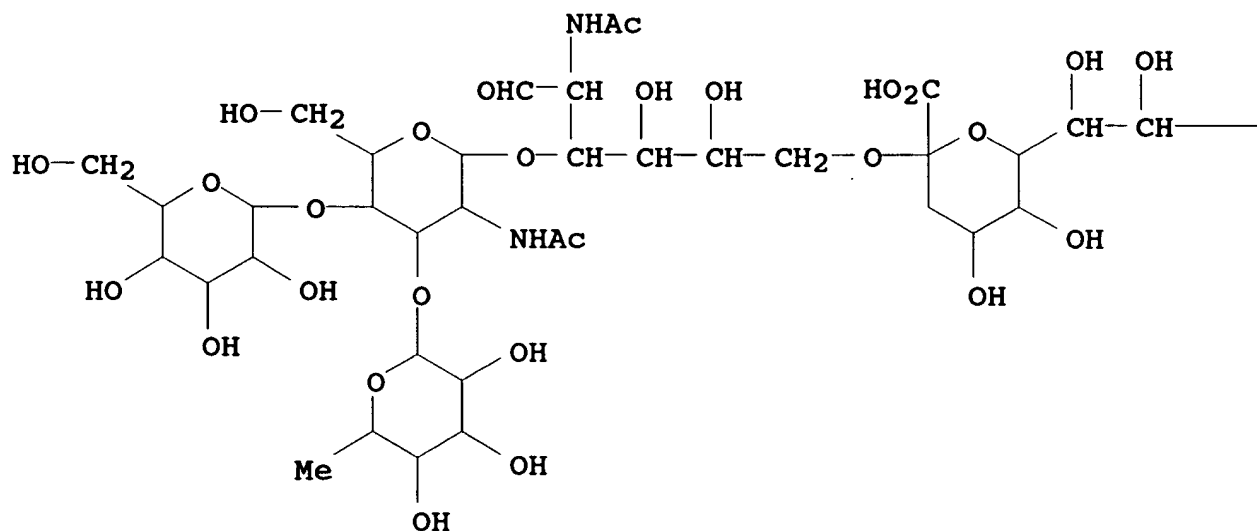
MF C37 H62 N2 O28

SR CA

LC STN Files: CA

DES *

PAGE 1-A



PAGE 1-B

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1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

REFERENCE 1: P 119:115327

REFERENCE 2: 116:149664

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RN 121294-99-3 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

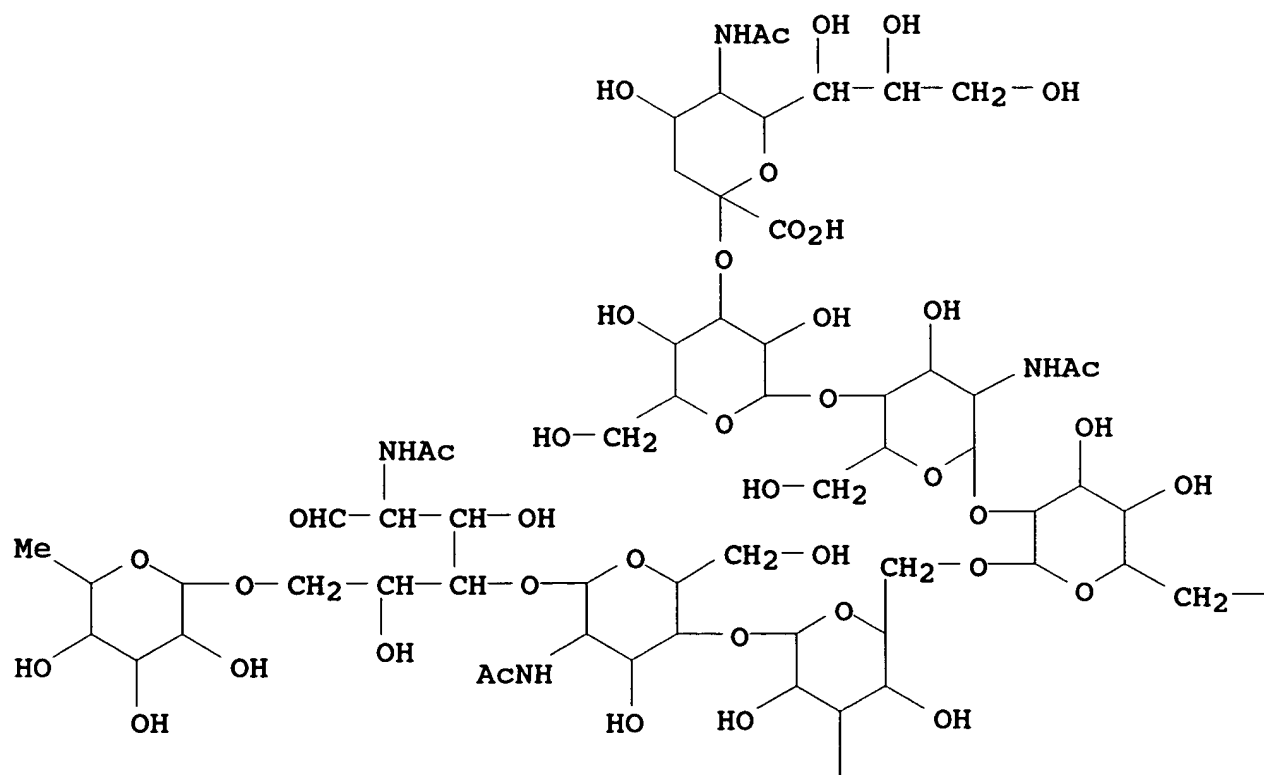
MF C85 H141 N5 O62

SR CA

LC STN Files: CA, TOXLIT

DES *

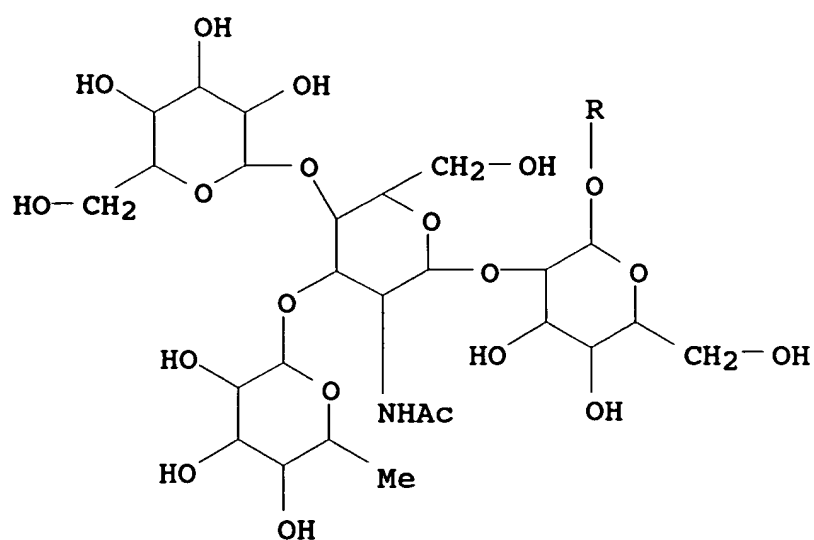
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2 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 113:120766

REFERENCE 2: 111:37619

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RN 120885-83-8 REGISTRY

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

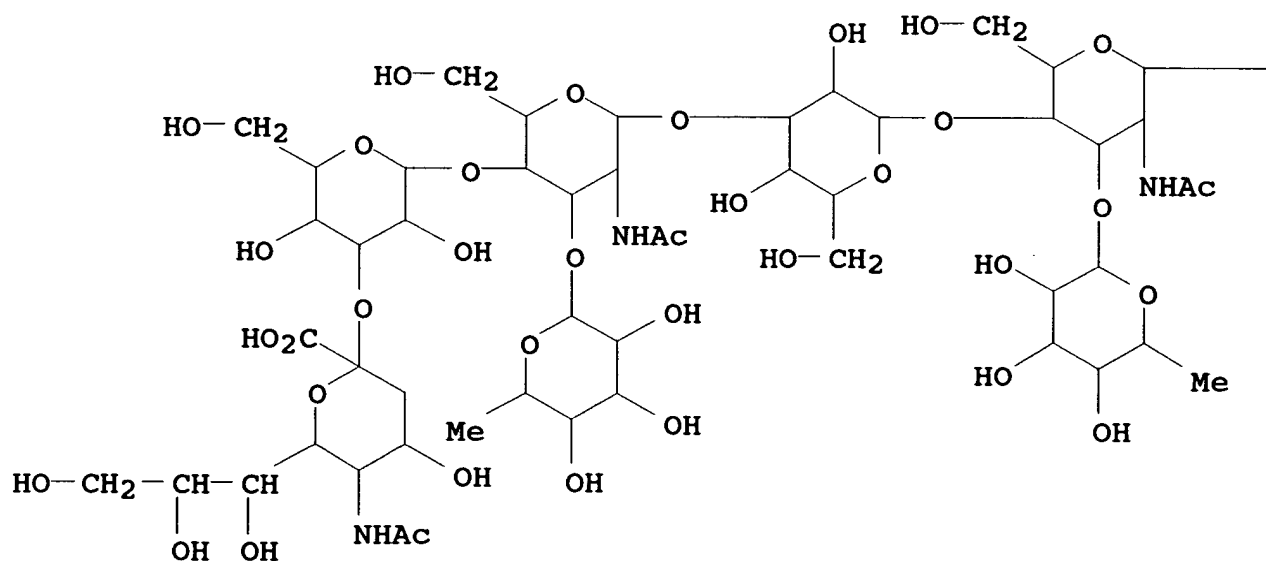
MF C63 H105 N3 O47

SR CA

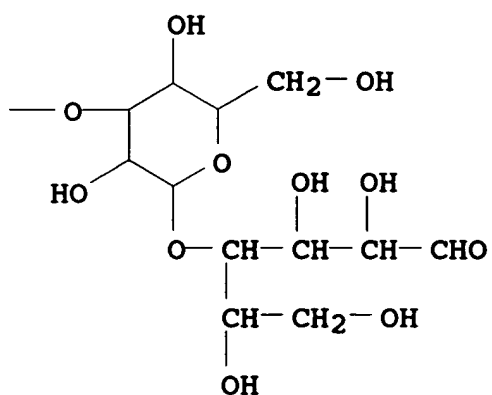
LC STN Files: CA

DES *

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1 REFERENCES IN FILE CA (1967 TO DATE)

REFERENCE 1: P 111:5754